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THE ADVANCEMENT OF LEARNING

BOOK I

The Advancement of Learning

Book I

By
Francis Bacon

WITH NOTES BY

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THE
FIRST BOOK OF FRANCIS BACON;
OF THE PROFICIENCE AND
ADVANCEMENT OF LEARNING,
DIVINE AND HUMAN.

To the King.

THERE were under the law, excellent King, both daily sacrifices and freewill offerings; the one proceeding upon ordinary observance, the other upon a devout cheerfulness; in like manner there belongeth to kings from their servants both tribute of duty and presents of affection. In the former of these I hope I shall not live to be wanting, according to my most humble duty, and the good pleasure of your Majesty's employments: for the latter, I thought it more respective to make choice of some oblation, which might rather refer to the propriety and excellency of your individual 10 person, than to the business of your crown and state.

Wherefore, representing your Majesty many times unto my mind, and beholding you not with the inquisitive eye of presumption, to discover that which the Scripture telleth me is inscrutable, but with the observant eye of duty and admiration; leaving aside the other parts of your virtue and fortune, I have been touched, yea, and possessed with

an extreme wonder at those your virtues and faculties, which the Philosophers call intellectual; the largeness of your capacity, the faithfulness of your memory, the swiftness of your apprehension, the penetration of your judgment, and the facility and order of your elocution: and I have often thought, that of the persons living that I have known, your Majesty were the best instance to make a man of Plato's opinion, that all knowledge is but remembrance, and that the mind of man by nature knoweth all things, and hath but her
 10 own native and original notions (which by the strangeness and darkness of this tabernacle of the body are sequestered) again revived and restored: such a light of nature I have observed in your Majesty, and such a readiness to take flame and blaze from the least occasion presented, or the least spark of another's knowledge delivered. And as the Scripture saith of the wisest king, *That his heart was as the sands of the sea*; which though it be one of the largest bodies, yet it consisteth of the smallest and finest portions; so hath God given your Majesty a composition of understanding admirable,
 20 being able to compass and comprehend the greatest matters, and nevertheless to touch and apprehend the least; whereas it should seem an impossibility in nature, for the same instrument to make itself fit for great and small works. And for your gift of speech, I call to mind what Cornelius Tacitus saith of Augustus Cæsar: *Augusto profuens, et quas principem deceret, eloquentia fuit*: [*Augustus had an easy and fluent way of speaking, such as became a sovereign.*] For, if we note it well, speech that is uttered with labour and difficulty, or speech that savoureth of the affectation of art and precepts,
 30 or speech that is framed after the imitation of some pattern of eloquence, though never so excellent; all this hath somewhat servile, and holding of the subject. But your Majesty's manner of speech is indeed prince-like, flowing as from a fountain, and yet streaming and branching itself into nature's order, full of facility and felicity, imitating none, and inimitable by any. And as in your civil estate there appeareth to

be an emulation and contention of your Majesty's virtue with your fortune ; a virtuous disposition with a fortunate regiment ; a virtuous expectation, when time was, of your greater fortune, with a prosperous possession thereof in the due time ; a virtuous observation of the laws of marriage, with most blessed and happy fruit of marriage ; a virtuous and most Christian desire of peace, with a fortunate inclination in your neighbour princes thereunto : so likewise, in these intellectual matters, there seemeth to be no less contention between the excellency of your Majesty's gifts of 10 nature, and the universality and perfection of your learning. For I am well assured that this which I shall say is no amplification at all, but a positive and measured truth ; which is, that there hath not been since Christ's time any king or temporal monarch, which hath been so learned in all literature and erudition, divine and human. For let a man seriously and diligently revolve and peruse the succession of the emperors of Rome, of which Cæsar the Dictator, who lived some years before Christ, and Marcus Antoninus, were the best learned ; and so descend to the emperors of Græcia, 20 or of the West ; and then to the lines of France, Spain, England, Scotland, and the rest, and he shall find this judgment is truly made. For it seemeth much in a king, if, by the compendious extractions of other men's wits and labours, he can take hold of any superficial ornaments and shows of learning ; or if he countenance and prefer learning and learned men : but to drink indeed of the true fountains of learning, nay, to have such a fountain of learning in himself, in a king, and in a king born, is almost a miracle. And the more, because there is met in your Majesty a rare conjunction, 30 as well of divine and sacred literature, as of profane and human ; so as your Majesty standeth invested of that triplicity, which in great veneration was ascribed to the ancient Hermes ; the power and fortune of a king, the knowledge and illumination of a priest, and the learning and universality of a philosopher. This propriety, inherent and.

individual attribute in your Majesty, deserveth to be expressed not only in the fame and admiration of the present time, nor in the history or tradition of the ages succeeding, but also in some solid work, fixed memorial, and immortal monument, bearing a character or signature both of the power of a king, and the difference and perfection of such a king.

Therefore I did conclude with myself, that I could not make unto your Majesty a better oblation than of some
 10 treatise tending to that end, whereof the sum will consist of these two parts ; the former, concerning the excellency of learning and knowledge, and the excellency of the merit and true glory in the augmentation and propagation thereof ; the latter, what the particular acts and works are, which have been embraced and undertaken for the advancement of learning ; and again, what defects and undervalues I find in such particular acts : to the end that though I cannot positively or affirmatively advise your Majesty, or propound unto you framed particulars, yet I may excite your princely
 20 cogitations to visit the excellent treasure of your own mind, and thence to extract particulars for this purpose, agreeable to your magnanimity and wisdom.

In the entrance to the former of these, to clear the way, and as it were, to make silence, to have the true testimonies concerning the dignity of learning to be better heard, without the interruption of tacit objections ; I think good to deliver it from the discredits and disgraces which it hath received, all from ignorance ; but ignorance severally disguised ; appearing sometimes in the zeal and jealousy of
 30 divines ; sometimes in the severity and arrogancy of politicians ; and sometimes in the errors and imperfections of learned men themselves.

I hear the former sort say, that knowledge is of those things which are to be accepted of with great limitation and caution ; that the aspiring to overmuch knowledge was the

original temptation and sin, whereupon ensued the fall of man; that knowledge hath in it somewhat of the serpent, and therefore where it entereth into a man it makes him ewell; *scientia inflat*: [*knowledge puffeth up*.] that Solomon gives a censure, *That there is no end of making books, and that much reading is a weariness of the flesh*; and again in another place, *That in spacious knowledge there is much contristation, and that he that increaseth knowledge increaseth anxiety*; that Saint Paul gives a caveat, *That we be not spoiled through vain philosophy*; that experience demonstrates how learned men 10 have been arch-heretics, how learned times have been inclined to atheism, and how the contemplation of second causes doth derogate from our dependence upon God, who is the first cause.

To discover then the ignorance and error of this opinion, and the misunderstanding in the ground thereof, it may well appear these men do not observe or consider that it was not the pure knowledge of nature and universality, a knowledge by the light whereof man did give names unto other creature in Paradise, as they were brought before 20 him, according unto their proprieties, which gave the occasion to the fall: but it was the proud knowledge of good and evil, with an intent in man to give law unto himself, and to depend no more upon God's commandments, which was the form of the temptation. Neither is it any quantity of knowledge, how great soever, that can make the mind of man to swell; for nothing can fill, much less extend the soul of man, but God and the contemplation of God; and therefore Solomon, speaking of the two principal senses of inquisition, the eye and the ear, affirmeth that the eye is never satisfied 30 with seeing, nor the ear with hearing; and if there be no fulnees, then is the continent greater than the content: so of knowledge itself, and the mind of man, whereto the senses are but reporters, he defineth likewise in these words, placed after that calendar or ephemerides, which he maketh of the diversities of times and seasons for all actions and purposes;

and concludeth thus : *God hath made all things beautiful, or decent, in the true return of their seasons : also He hath placed the world in man's heart, yet cannot man find out the work which God worketh from the beginning to the end :* declaring not obscurely, that God hath framed the mind of man as a mirror or glass, capable of the image of the universal world, and joyful to receive the impression thereof, as the eye joyeth to receive light ; and not only delighted in beholding the variety of things and vicissitude of times, but
10 raised also to find out and discern the ordinances and decrees, which throughout all those changes are infallibly observed. And although he doth insinuate that the supreme or summary law of nature, which he calleth, *The work which God worketh from the beginning to the end,* is not possible to be found out by man ; yet that doth not derogate from the capacity of the mind, but may be referred to the impediments, as of shortness of life, ill conjunction of labours, ill tradition of knowledge over from hand to hand, and many other inconveniences, whereunto the condition of
20 man is subject. For that nothing parcel of the world is denied to man's inquiry and invention, he doth in another place rule over, when he saith, *The spirit of man is as the lamp of God, wherewith He searcheth the inwardness of all secrets.* If then such be the capacity and receipt of the mind of man, it is manifest that there is no danger at all in the proportion or quantity of knowledge, how large soever, lest it should make it swell or out-compass itself ; no, but it is merely the quality of knowledge, which, be it in quantity more or less, if it be taken without the true corrective
30 thereof, hath in it some nature of venom or malignity, and some effects of that venom, which is ventosity or swelling. This corrective spice, the mixture whereof maketh knowledge so sovereign, is charity, which the Apostle immediately addeth to the former clause : for so he saith, *Knowledge bloweth up, but charity buildeth up ;* not unlike unto that which he delivereth in another place : *If I spake,* saith he, *with the*

*tongues of men and angels, and had not charity, it were but as a tinkling cymbal; not but that it is an excellent thing to speak with the tongues of men and angels, but because, if it be severed from charity, and not referred to the good of men and mankind, it hath rather a sounding and unworthy glory, than a meriting and substantial virtue. And as for that censure of Solomon, concerning the excess of writing and reading books, and the anxiety of spirit which redoundeth from knowledge; and that admonition of St. Paul, That we be not seduced by vain philosophy; let those places be 10 rightly understood, and they do indeed excellently set forth the true bounds and limitations, whereby human knowledge is confined and circumscribed; and yet without any such contracting or coarctation, but that it may comprehend all the universal nature of things; for these limitations are three: the first, That we do not so place our felicity in knowledge, as we forget our mortality: the second, That we make application of our knowledge, to give ourselves repose and contentment, and not distaste or repining: the third, That we do not presume by the contemplation of nature to attain to 20 the mysteries of God. For as touching the first of these, Solomon doth excellently expound himself in another place of the same book, where he saith: I saw well that knowledge recedeth as far from ignorance as light doth from darkness; and that the wise man's eyes keep watch in his head, whereas the fool roundeth about in darkness: but withal I learned, that the same mortality involveth them both. And for the second, certain it is, there is no vexation or anxiety of mind which resulteth from knowledge, otherwise than merely by accident; for all knowledge and wonder (which is the seed of 30 knowledge) is an impression of pleasure in itself: but when men fall to framing conclusions out of their knowledge, applying it to their particular, and ministering to themselves thereby weak fears or vast desires, there groweth that carefulness and trouble of mind which is spoken of: for then knowledge is no more *Lumen nudum*, [a dry light,] whereof*

Heraclitus the profound said, *Lumen siccum optima anima*; [a dry light is the best soul;] but it becometh *lumen madidum*, [a light wet,] or *maceratum* [softened] by steeping, being steeped and infused in the humours of the affections. And as for the third point, it deserveth to be a little stood upon, and not to be lightly passed over: for if any man shall think by view and inquiry into these sensible and material things to attain that light, whereby he may reveal unto himself the nature or will of God, then indeed is he spoiled
 10 by vain philosophy: for the contemplation of God's creatures and works produceth (having regard to the works and creatures themselves) knowledge, but having regard to God, no perfect knowledge, but wonder, which is broken knowledge. And therefore it was most aptly said by one of Plato's school, *That the sense of man carrieth a resemblance with the sun, which, as we see, openeth and revealeth all the terrestrial globe; but then again it obscureth and concealeth the stars and celestial globe: so doth the sense discover natural things, but it darkeneth and shutteth up divine.* And hence it
 20 is true that it hath proceeded, that divers great learned men have been heretical, whilst they have sought to fly up to the secrets of the Deity by the waxen wings of the senses. And as for the conceit that too much knowledge should incline a man to atheism, and that the ignorance of second causes should make a more devout dependence upon God, which is the first cause; first, it is good to ask the question which Job asked of his friends: *Will you lie for God, as one man will do for another, to gratify him?* For certain it is that God worketh nothing in nature but by second causes;
 30 and if they would have it otherwise believed, it is mere imposture, as it were in favour towards God; and nothing else but to offer to the author of truth the unclean sacrifice of a lie. But further, it is an assured truth, and a conclusion of experience, that a little or superficial knowledge of philosophy may incline the mind of man to atheism, but a farther proceeding therein doth bring the mind back

again to religion ; for in the entrance of philosophy, when the second causes which are next unto the senses, do offer themselves to the mind of man, if it dwell and stay there it may induce some oblivion of the highest cause ; but when a man passeth on further, and seeth the dependence of causes, and the works of Providence ; then, according to the allegory of the poets, he will easily believe that the highest link of nature's chain must needs be tied to the foot of Jupiter's chair. To conclude, therefore, let no man upon a weak conceit of sobriety, or an ill-applied moderation, 10 think or maintain, that a man can search too far, or be too well studied in the book of God's word, or in the book of God's works, divinity or philosophy ; but rather let men endeavour an endless progress or proficiencie in both ; only let men beware that they apply both to charity, and not to swelling ; to use, and not to ostentation ; and again, that they do not unwisely mingle or confound these learnings together.

And as for the disgraces which learning receiveth from politicians, they be of this nature ; that learning doth 20 soften men's minds, and makes them more unapt for the honour and exercise of arms ; that it doth mar and pervert men's dispositions for matter of government and policy ; in making them too curious and irresolute by variety of reading ; or too peremptory or positive by strictness of rules and axioms ; or too immoderate and overweening by reason of the greatness of examples ; or too incompatible and differing from the times, by reason of the dissimilitude of examples ; or at least, that it doth divert men's travails from action and business, and bringeth them to a love of 30 leisure and privateness ; and that it doth bring into states a relaxation of discipline, whilst every man is more ready to argue, than to obey and execute. Out of this conceit, Cato, surnamed the Censor, one of the wisest men indeed that ever lived, when Carneades the philosopher came in

embassage to Rome, and that the young men of Rome began to flock about him, being allured with the sweetness and majesty of his eloquence and learning, gave counsel in open senate, that they should give him his dispatch with all speed, lest he should infect and enchant the minds and affections of the youth, and at unawares bring in an alteration of the manners and customs of the state. Out of the same conceit, or humour, did Virgil, turning his pen to the advantage of his country, and the disadvantage
 10 of his own profession, make a kind of separation between policy and government, and between arts and sciences, in the verses so much renowned, attributing and challenging the one to the Romans, and leaving and yielding the other to the Grecians : *Tu regere imperio populos, Romane, memento, Hæ tibi erunt artes, etc.* : [*Be it thy task, O Roman, to rule over subject peoples.*] So likewise we see that Auytus, the accuser of Socrates, laid it as an article of charge and accusation against him, that he did, with the variety and power of his discourses and disputations, withdraw young
 20 men from due reverence to the laws and customs of their country ; and that he did profess a dangerous and pernicious science, which was to make the worse matter seem the better, and to suppress truth by force of eloquence and speech.

But these, and the like imputations, have rather a countenance of gravity, than any ground of justice : for experience doth warrant, that both in persons and in times, there hath been a meeting and concurrence in learning and arms, flourishing and excelling in the same men and the
 30 same ages. For, as for men, there cannot be a better nor the like instance, as of that pair, Alexander the Great and Julius Cæsar the Dictator ; whereof the one was Aristotle's scholar in philosophy, and the other was Cicero's rival in eloquence : or if any man had rather call for scholars that were great generals, than generals that were great scholars, let him take Epaminondas the Theban or Xenophon the

Athenian ; whereof the one was the first that abated the power of Sparta, and the other was the first that made way to the overthrow of the monarchy of Persia. And this concurrence is yet more visible in times than in persons, by how much an age is a greater object than a man. For both in Egypt, Assyria, Persia, Grecia, and Rome, the same times that are most renowned for arms, are likewise most admired for learning ; so that the greatest authors and philosophers, and the greatest captains and governors have lived in the same ages. Neither can it otherwise be : for as, in man, the 10 ripeness of strength of the body and mind cometh much about an age, save that the strength of the body cometh somewhat the more early ; so in states, arms and learning, whereof the one correspondeth to the body, the other to the soul of man, have a concurrence or near sequence in times.

And for matter of policy and government, that learning should rather hurt, than enable thereunto, is a thing very improbable : we see it is accounted an error to commit a natural body to empiric physicians which com- 20 monly have a few pleasing receipts wherenpon they are confident and adventurous, but know neither the causes of diseases, nor the complexions of patients, nor peril of accidents, nor the true method of cures : we see it is a like error to rely upon advocates or lawyers, which are only men of practice and not grounded in their books, who are many times easily surprised, when matter falleth out besides their experience, to the prejudice of the causes they handle : so, by like reason, it cannot be but a matter of doubtful consequence, if states be managed by empiric statesmen, not well 30 mingled with men grounded in learning. But contrariwise, it is almost without instance contradictory, that ever any government was disastrous that was in the hands of learned governors. For howsoever it hath been ordinary with politic men to extenuate and disable learned men by the names of *pedants* ; yet in the records of time it appeareth, in many

particulars, that the governments of princes in minority (notwithstanding the infinite disadvantage of that kind of state) have nevertheless excelled the government of princes of mature age, even for that reason which they seek to traduce, which is, that by that occasion the state hath been in the hands of *pedants*: for so was the state of Rome for the first five years, which are so much magnified, during the minority of Nero, in the hands of Seneca, a *pedant*: so it was again, for ten years' space or more, during the minority of Gordianus the younger, with great applause and contentation in the hands of Misiheus a *pedant*: so was it before that, in the minority of Alexander Severus, in like happiness, in hands not much unlike, by reason of the rule of the women, who were aided by the teachers and preceptors. Nay, let a man look into the government of the Bishops of Rome, as by name, into the government of Pius Quintus, and Sextus Quintus, in our times, who were both at their entrance esteemed but as pedantical friars, and he shall find that such Popes do greater things, and proceed upon truer

20 principles of estate, than those which have ascended to the papacy from an education and breeding in affairs of estate and courts of princes; for although men bred in learning are perhaps to seek in points of convenience and accommodating for the present, which the Italians call *ragioni di stato*, [*reasons of state*,] whereof the same Pius Quintus could not hear spoken with patience, terming them inventions against religion and the moral virtues; yet on the other side, to recompense that, they are perfect in those same plain grounds of religion, justice, honour, and moral virtue, which

30 if they be well and watchfully pursued, there will be seldom use of those other, no more than of physic in a sound or well-dieted body. Neither can the experience of one man's life furnish examples and precedents for the events of one man's life: for, as it happeneth sometimes that the grandchild, or other descendant, resembleth the ancestor more than the son; so many times occurrences of present times

may sort better with ancient examples, than with those of the latter or immediate times : and lastly, the wit of one man can no more countervail learning than one man's means can hold way with a common purae.

And as for those particular seducements, or indispositions of the mind for policy and government, which learning is pretended to insinuate ; if it be granted that any such thing be, it must be remembered withal, that learning ministereth in every of them greater strength of medicine or remedy, than it offereth cause of indisposition or infirmity ; 10 for if, by a secret operation, it make men perplexed and irresolute, on the other side, by plain precept it teacheth them when and upon what ground to resolve ; yea, and how to carry things in suspense, without prejudice, till they resolve ; if it make men positive and regular, it teacheth them what things are in their nature demonstrative, and what are conjectural ; and as well the use of distinctions and exceptions, as the latitude of principles and rules. If it mislead by disproportion, or dissimilitude of examples, it teacheth men the force of circumstances, the errors of comparisons, 20 and all the cautions of application ; so that in all these it doth rectify more effectually than it can pervert. And these medicines it conveyeth into men's minds much more forcibly by the quickness and penetration of examples. For let a man look into the errors of Clement the Seventh, so lively described by Guicciardina, who served under him, or into the errors of Cicero, painted out by his own pencil in his Epistles to Atticus, and he will fly apace from being irresolute. Let him look into the errors of Phocion, and he will beware how he be obstinate or inflexible. Let him but read the fable of 30 Ixion, and it will hold him from being vaporous or imaginative. Let him look into the errors of Cato the second, and he will never be one of the Antipodes, to tread opposite to the present world.

And for the conceit that learning should dispose men to leisure and privateness, and make men slothful ; it were a

strange thing if that, which accustometh the mind to a perpetual motion and agitation, should induce slothfulness ; whereas contrariwise it may be truly affirmed, that no kind of men love business for itself, but those that are learned ; for other persons love it for profit, as a hireling, that loves the work for the wages ; or for honour, as because it beareth them up in the eyes of men, and refresheth their reputation, which otherwise would wear ; or because it putteth them in mind of their fortune, and giveth them occasion to pleasure
 10 and displeasure ; or because it exerciseth some faculty wherein they take pride, and so entertaineth them in good humour and pleasing conceits toward themselves ; or because it advanceth any other their ends. So that, as it is said of untrue valours, that some men's valours are in the eyes of them that look on ; so such men's industries are in the eyes of others, or at least in regard of their own designments : only learned men love business, as an action according to nature, as agreeable to health of mind, as exercise is to health of body, taking pleasure in the action itself, and not in the
 20 purchase : so that of all men they are the most indefatigable, if it be towards any business which can hold or detain their mind.

And if any man be laborious in reading and study, and yet idle in business and action, it groweth from some weakness of body, or softness of spirit ; such as Seneca speaketh of : *Quidam tam sunt umbratiles, ut putent in turbido esse quicquid in luce est* ; [Some men live so much in the shade, that whenever they are in the light they seem to be in trouble ;] and not of learning : well may it be, that such a point of a
 30 man's nature may make him give himself to learning, but it is not learning that breedeth any such point in his nature.

And that learning should take up too much time or leisure : I answer ; the most active or busy man that hath been or can be, hath, no question, many vacant times of leisure, while he expecteth the tides and returns of business (except he be either tedious and of no despatch, or lightly

and unworthily ambitious to meddle in things that may be better done by others :) and then the question is, but how those spaces and times of leisure shall be filled and spent ; whether in pleasures or in studies ; as was well answered by Demosthenes to his adversary *Æschines*, that was a man given to pleasure, and told him, *That his orations did smell of the lamp : Indeed, said Demosthenes, there is great difference between the things that you and I do by lamp-light.* So as no man need doubt that learning will expulse business, but rather it will keep and defend the possession of the mind 10 against idleness and pleasure, which otherwise at unawares may enter to the prejudice of both.

Again, for that other conceit, that learning should undermine the reverence of laws and government, it is assuredly a mere depravation and calumny, without all shadow of truth. For to say, that a blind custom of obedience should be a surer obligation than duty taught and understood ; it is to affirm, that a blind man may tread surer by a guide than a seeing man can by a light. And it is without all controversy, that learning doth make the minds 20 of men gentle, generous, maniable, and pliant to government ; whereas ignorance makes them churlish, thwart, and mutinous : and the evidence of time doth clear this assertion, considering that the most barbarous, rude, and unlearned times have been most subject to tumults, seditions, and changes.

And as to the judgment of Cato, the Censor, he was well punished for his blasphemy against learning, in the same kind wherein he offended ; for when he was past threescore years old, he was taken with an extreme desire 30 to go to school again, and to learn the Greek tongue, to the end to peruse the Greek authors ; which doth well demonstrate, that his former censure of the Grecian learning was rather an affected gravity, than according to the inward sense of his own opinion. And as for Virgil's verses, though it pleased him to brave the world in taking to the

Romans the art of empire, and leaving to others the arts of subjects; yet so much is manifest, that the Romans never ascended to that height of empire, till the time they had ascended to the height of other arts. For in the time of the two first Cæsars, which had the art of government in greatest perfection, there lived the best poet, Virgilius Maro; the best historiographer, Titus Livius; the best antiquary, Marcus Varro; and the best, or second orator, Marcus Cicero, that to the memory of man are known.

- 10 As for the accusation of Socrates, the time must be remembered when it was prosecuted; which was under the Thirty Tyrants, the most base, bloody, and envious persons that have governed; which revolution of state was no sooner over, but Socrates, whom they had made a person criminal, was made a person heroical, and his memory accumulate with honours divine and human; and those discourses of his which were then termed corrupting of manners, were after acknowledged for sovereign medicines of the mind and manners, and so have been received ever since till
- 20 this day. Let this, therefore, serve for answer to politicians, which in their humorous severity, or in their feigned gravity, have presumed to throw imputations upon learning; which redargution nevertheless (save that we know not whether our labours may extend to other ages) were not needful for the present, in regard of the love and reverence towards learning, which the example and countenance of two so learned princes, Queen Elizabeth and your Majesty, being as Castor and Pollux, *lucida sidera*, [*bright stars*], stars of excellent light and most benign influence, hath
- 30 wrought in all men of place and authority in our nation.

Now therefore we come to that third sort of discredit or diminution of credit, that groweth unto learning from learned men themselves, which commonly cleaveth fastest: it is either from their fortune; or from their manners; or from the nature of their studies. For the first,

it is not in their power; and the second is accidental: the third only is proper to be handled: but because we are not in hand with true measure, but with popular estimation and conceit, it is not amiss to speak somewhat of the two former. The derogations therefore which grow to learning from the fortune or condition of learned men, are either in respect of scarcity of means, or in respect of privateness of life, and manness of employments.

Concerning want, and that it is the case of learned men usually to begin with little, and not to grow rich so fast as other men, by reason they convert not their labours chiefly to lucre and increase: it were good to leave the common place in commendation of poverty to some friar to handle, to whom much was attributed by Machiavel in this point; when he said, *That the kingdom of the clergy had been long before at an end, if the reputation and reverence towards the poverty of friars had not borne out the scandal of the superfluities and excesses of bishops and prelates.* So a man might say that the felicity and delicacy of princes and great persons had long since turned to rudeness and barbarism, 20 if the poverty of learning had not kept up civility and honour of life: but without any such advantages, it is worthy the observation, what a reverent and honoured thing poverty of fortune was, for some ages, in the Roman state, which nevertheless was a state without paradoxes: for we see what Titus Livius saith in his introduction: *Ceterum aut me amor negotii suscepti fallit aut nulla unquam respublica neo major, neo sanctor, nec bonis exemplis ditior fuit; nec in quam tam seræ avaritia luxuriæque immigraverint; nec ubi tantus ac tam diu paupertati ac parsimonie 30 honos fuerit:* [If I am not led away by love of the task which I have undertaken, there never was a state greater nor more religious, nor richer in good examples than Rome: nor one into which avarice and luxury were so long in making their way: nor one in which poverty and economy were held in such great and such long continued esteem.] We see likewise, after

that the state of Rome was not itself, but did degenerate, how that person, that took upon him to be counsellor to Julius Cæsar after his victory, where to begin his restoration of the state, maketh it of all points the most summary to take away the estimation of wealth: *Verum hæc et omnia mala pariter cum honore pecuniæ desinent: si neque magistratus, neque alia vulgo cupienda venalia erunt:* [But these and all evils will disappear when wealth is no longer honoured, and when the magistracies and other objects of general ambition are not procurable by money.] To conclude this point, as it was truly said, that *Rubor est virtutis color,* [A blush is virtue's colour,] though sometime it come from vice; so it may be fitly said that *Paupertas est virtutis fortuna,* [Poverty is virtue's fortune,] though sometime it may proceed from misgovernment and accident. Surely Solomon hath pronounced it both in censure, *Qui festinat ad divitias non erit insons,* [He that maketh haste to be rich shall not be innocent;] and in precept, *Buy the truth, and sell it not; and so of wisdom and knowledge;* judging that means were to be spent upon learning, and not learning to be applied to means. And as for the privateness, or obscurity (as it may be in vulgar estimation accounted) of life of contemplative men; it is a theme so common, to extol a private life not taxed with sensuality and sloth, in comparison and to the disadvantage of a civil life, for safety, liberty, pleasure, and dignity, or at least freedom from indignity, as no man handleth it, but handleth it well; such a consonancy it hath to men's conceits in the expressing, and to men's consents in the allowing. This only I will add, that learned men forgotten in states, and not living in the eyes of men, are like the images of Cassius and Brutus in the funeral of Junia: of which not being represented, as many others were, Tacitus saith, *Eo ipso præfulgebant, quod non visebantur:* [They outshone them all from the very fact that they were not to be seen.]

And for meanness of employment, that which is most traduced to contempt is that the government of youth is commonly allotted to them; which age, because it is the age of least authority, it is transferred to the disesteeming of those employments wherein youth is conversant, and which are conversant about youth. But how unjust this traducement is (if you will reduce things from popularity of opinion to measure of reason) may appear in that, we see men are more curious what they put into a new vessel, than into a vessel seasoned; and what mould they lay about a young plant, than about a plant corroborate; so as the weakest terms and times of all things use to have the best applications and helps. And will you hearken to the Hebrew rabbins? *Your young men shall see visions, and your old men shall dream dreams*; say they youth is the worthier age, for that visions are nearer apparitions of God than dreams? And let it be noted, that howsoever the condition of life of pedants hath been scorned upon theatres, as the ape of tyranny; and that the modern looseness or negligence hath taken no due regard to the choice of schoolmasters and tutors; yet the ancient wisdom of the best times, did always make a just complaint, that states were too busy with their laws, and too negligent in point of education: which excellent part of ancient discipline hath been in some sort revived of late times by the colleges of the Jesuits; of whom, although in regard of their superstition I may say, *Quo meliores, eo deteriores*, [*The better they are the worse they are*]; yet in regard of this, and some other points concerning human learning and moral matters, I may say, as Agesilaus said to his enemy Pharnabazus, *Talis quum sis, utinam noster esses*, [*You are so good that I wish you were on our side*]. And thus much touching the discredits drawn from the fortunes of learned men.

As touching the manners of learned men, it is a thing personal and individual: and no doubt there be amongst

them, as in other professions, of all temperatures : but yet so as it is not without truth, which is said, that *Abeunt studia in mores*, studies have an influence and operation upon the manners of those that are conversant in them.

But upon an attentive and indifferent review, I for my part cannot find any disgrace to learning can proceed from the manners of learned men not inherent to them as they are learned ; except it be a fault (which was the supposed fault of Demosthenes, Cicero, Cato the second, 10 Seneca, and many more) that, because the times they read of are commonly better than the times they live in, and the duties taught better than the duties practised, they contend sometimes too far to bring things to perfection, and to reduce the corruption of manners to honesty of precepts or examples of too great height. And yet hereof they have caveats enough in their own walks. For Solon, when he was asked whether he had given his citizens the best laws, answered wisely, *Yea, of such as they would receive* : and Plato, finding that his own heart could not agree with 20 the corrupt manners of his country, refused to bear place or office ; saying, *That a man's country was to be used as his parents were, that is, with humble persuasions, and not with contestations*. And Cæsar's counsellor put in the same caveat, *Non ad vetera instituta revocans quæ jampridem corruptis moribus ludibrio sunt* : [Do not attempt to restore things to the original institutions which, by the long corruption of manners, have fallen into contempt ;] and Cicero noteth this error directly in Cato the second, when he writes to his friend Atticus, *Cato optime sentit, sed nocet interdum rei-* 30 *publicæ ; loquitur enim tunc in republica Platonis, non tunc in facie Romuli* : [Cato's opinions are excellent, but sometimes do harm to the commonwealth : for he speaks as if he were living in Plato's republic, and not amid the drags of the Roman populace.] And the same Cicero doth excuse and expound the philosophers for going too far, and being too exact in their prescripts, when he saith, *Isti ipsi præceptores*

virtutis et magistri, videntur fines officiorum paulo longius quam natura vellet protulisse, ut cum ad ultimum animo contendissemus, ibi tamen, ubi oportet, consisteremus: [Those very teachers of virtue themselves seem to have fixed the standard of duty somewhat higher than nature can bear: in order that after striving our utmost to attain to it, we might at any rate reach the proper standard:] and yet himself might have said, *Monitis sum minor ipse meis,* [I do not act up to my own precepts:] for it was his own fault, though not in so extraneous a degree.

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Another fault likewise much of this kind hath been incident to learned men; which is, that they have esteemed the preservation, good, and honour of their countries or masters before their own fortunes or safeties. For so saith Demosthenes unto the Athenians: *If it please you to note it, my counsels unto you are not such whereby I should grow great amongst you, and you become little amongst the Grecians; but they be of that nature, as they are sometimes not good for me to give, but are always good for you to follow.* And so Seneca, after he had consecrated that *quinquennium Neronis* 20 [those five years of Nero's reign] to the eternal glory of learned governors, held on his honest and loyal course of good and free counsel, after his master grew extremely corrupt in his government. Neither can this point otherwise be; for learning endueth men's minds with a true sense of the frailty of their persons, the casualty of their fortunes, and the dignity of their soul and vocation: so that it is impossible for them to esteem that any greatness of their own fortune can be a true or worthy end of their being and ordainment; and therefore are desirous to give their account 30 to God, and so likewise to their masters under God (as kings and the states that they serve) in these words; *Eccē tibi lucre feci,* [Lo! I have made profit for you,] and not *Eccē mihi lucre feci:* [Lo! I have made profit for myself:] whereas the corrupter sort of mere politicians, that have not their thoughts established by learning in the love and appre-

hension of duty, nor ever look abroad into universality, do refer all things to themselves, and thrust themselves into the centre of the world, as if all lines should meet in them and their fortunes ; never caring, in all tempests, what becomes of the ship of estates, so they may save themselves in the cockboat of their own fortune : whereas men that feel the weight of duty, and know the limits of self-love, use to make good their places and duties, though with peril ; and if they stand in seditious and violent alterations, it is rather the
 10 reverence which many times both adverse parts do give to honesty, than any versatile advantage of their own carriage. But for this point of tender sense, and fast obligation of duty, which learning doth endue the mind withal, howsoever fortune may tax it, and many in the depth of their corrupt principles may despise it, yet it will receive an open allowance, and therefore needs the less disproof or excusation.

Another fault incident commonly to learned men, which may be more probably defended than truly denied, is, that they fail sometimes in applying themselves to particular
 20 persons : which want of exact application ariseth from two causes ; the one, because the largeness of their mind can hardly confine itself to dwell in the exquisite observation or examination of the nature and customs of one person : for it is a speech for a lover, and not for a wise man, *Satis magnum alter alteri theatrum sumus* : [*We are a sufficiently large theatre one for another.*] Nevertheless I shall yield, that he that cannot contract the sight of his mind, as well as disperse and dilate it, wanteth a great faculty. But there is a second cause, which is no inability, but a rejection upon choice and
 30 judgment. For the honest and just bounds of observation by one person upon another, extend no further but to understand him sufficiently, whereby not to give him offence, or whereby to be able to give him faithful counsel, or whereby to stand upon reasonable guard and caution in respect of a man's self : but to be speculative into another man, to the end to know how to work him, or wind him, or govern him,

proceedeth from a heart that is double and cloven, and not entire and ingenuous ; which as in friendship it is want of integrity, so towards princes or superiors is want of duty. For the custom of the Levant, which is, that subjects do forbear to gaze or fix their eyes upon princes, is in the outward ceremony barbarous, but the moral is good : for men ought not by cunning and bent observations to pierce and penetrate into the hearts of kings, which the Scripture hath declared to be inscrutable.

There is yet another fault (with which I will conclude 10 this part) which is often noted in learned men, that they do many times fail to observe decency and discretion in their behaviour and carriage, and commit errors in small and ordinary points of action, so as the vulgar sort of capacities do make a judgment of them in greater matters by that which they find wanting in them in smaller. But this consequence doth oft deceive men, for which I do refer them over to that which was said by Themistocles, arrogantly and uncivilly being applied to himself out of his own mouth ; but, being applied to the general state of this question, 20 pertinently and justly ; when, being invited to touch a lute, he said, *He could not fiddle, but he could make a small town a great state.* So, no doubt, many may be well seen in the passages of government and policy, which are to seek in little and punctual occasions. I refer them also to that which Plato said of his master Socrates, whom he compared to the gallipots of apothecaries, which on the outside had apes and owls and antiques, but contained within sovereign and precious liquors and confections ; acknowledging that to an external report he was not without superficial levities and 30 deformities, but was inwardly replenished with excellent virtues and powers. And so much touching the point of manners of learned men.

But in the mean time I have no purpose to give allowance to some conditions and courses base and unworthy, wherein divers professors of learning have wronged them-

selves, and gone too far ; such as were those treacher philosophers, which in the later age of the Roman state were usually in the houses of great persons, being little better than solemn parasites ; of which kind, Lucian maketh a merry description of the philosopher that the great lady took to ride with her in her coach, and would needs have him carry her little dog, which he doing officiously and yet uncomely, the page scoffed, and said, *That he doubted, the philosopher of a Stoic would turn to be a Cynic.* But above all the rest, the
 10 gross and palpable flattery, whereunto many not unlearned have abased and abused their wits and pens, turning, as Du Bartas saith, Hecuba into Helena, and Faustina into Lucretia, hath most diminished the price and estimation of learning. Neither is the modern dedication of books and writings, as to patrons, to be commended, for that books, such as are worthy the name of books, ought to have no patrons but truth and reason. And the ancient custom was to dedicate them only to private and equal friends, or to entitle the books with their names : or if to kings and great persons, it
 20 was to some such as the argument of the book was fit and proper for : but these and the like courses may deserve rather reprehension than defence.

Not that I can tax or condemn the morigeration or application of learned men to men in fortune. For the answer was good that Diogenes made to one that asked him in mockery, *How it came to pass that philosophers were the followers of rich men, and not rich men of philosophers ?* He answered soberly, and yet sharply, *Because the one sort knew what they had need of, and the other did not.* And of the like
 30 nature was the answer which Aristippus made, when having a petition to Dionysius, and no ear given to him, he fell down at his feet ; whereupon Dionysius stayed, and gave him the hearing, and granted it ; and afterward some person, tender on the behalf of philosophy, reproved Aristippus that he would offer the profession of philosophy such an indignity, as for a private suit to fall at a tyrant's feet : but he

answered, *It was not his fault, but it was the fault of Dionysius, that had his ears in his feet.* Neither was it accounted weakness, but discretion in him that would not dispute his best with Adrianus Caesar; excusing himself, *That it was reason to yield to him that commanded thirty legions.* These and the like applications, and stooping to points of necessity and convenience, cannot be disallowed; for though they may have some outward baseness, yet in a judgment truly made they are to be accounted submissions to the occasion and not to the person.

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Now I proceed to those errors and vanities which have intervened amongst the studies themselves of the learned, which is that which is principal and proper to the present argument; wherein my purpose is not to make a justification of the errors, but, by a censure and separation of the errors, to make a justification of that which is good and sound, and to deliver that from the aspersion of the other. For we see, that it is the manner of men to scandalize and deprave that which retaineth the state and virtue, by taking advantage upon that which is corrupt and degenerate: 20 as the heathens in the primitive church used to blemish and taint the Christians with the faults and corruptions of heretics. But nevertheless I have no meaning at this time to make any exact animadversion of the errors and impediments in matters of learning, which are more secret and remote from vulgar opinion, but only to speak unto such as do fall under or near unto a popular observation.

There be therefore chiefly three vanities in studies, whereby learning hath been most traduced. For those things we do esteem vain, which are either false or frivolous, 30 those which either have no truth, or no use: and those persons we esteem vain, which are either credulous or curious; and curiosity is either in matter or words: so that in reason, as well as in experience, there fall out to be these three distempers, as I may term them, of learning; the first,

fantastical learning ; the second, contentious learning ; and the last, delicate learning ; vain imaginations, vain alterations, and vain affectations ; and with the last I will begin. Martin Luther, conducted no doubt by a higher providence, but in discourse of reason, finding what a province he had undertaken against the Bishop of Rome and the degenerate traditions of the Church, and finding his own solitude, being no ways aided by the opinions of his own time, was enforced to awake all antiquity, and to call former times to his succour,

10 to make a party against the present time. So that the ancient authors, both in divinity and in humanity, which had long time slept in libraries, began generally to be read and revolved. This by consequence did draw on a necessity of a more exquisite travail in the languages original, wherein those authors did write, for the better understanding of those authors, and the better advantage of pressing and applying their words. And thereof grew again a delight in their manner of style and phrase, and an admiration of that kind of writing ; which was much furthered and precipitated

20 by the enmity and opposition that the propounders of those primitive, but seeming new opinions, had against the Schoolmen ; who were generally of the contrary part, and whose writings were altogether in a different style and form ; taking liberty to coin and frame new terms of art to express their own sense, and to avoid circuit of speech, without regard to the pureness, pleasantness, and, as I may call it, lawfulness of the phrase or word. And again, because the great labour that then was with the people (of whom the Pharisees were wont to say, *Execrabilis ista turba quæ non novit legem*, [That

30 *wretched crowd that knoweth not the law,*] for the winning and persuading of them, there grew of necessity in chief price and request eloquence and variety of discourse, as the fittest and forciblest access into the capacity of the vulgar sort : so that these four causes concurring, the admiration of ancient authors, the hate of the Schoolmen, the exact study of languages, and the efficacy of preaching, did bring in an

affectionate study of eloquence and *copia* of speech, which then began to flourish. This grew speedily to an excess ; for men began to hunt more after words than matter ; more after the choiceness of the phrase, and the round and clean composition of the sentence, and the sweet falling of the clauses, and the varying and illustration of their works with tropes and figures, than after the weight of matter, worth of subject, soundness of argument, life of invention, or depth of judgment. Then grew the flowing and watery vein of Osorius, the Portugal bishop, to be in price. Then did 10 Starnius spend such infinite and curious pains upon Cicero the Orator, and Hermogenes the Rhetorician, besides his own books of Periods, and Imitation, and the like. Then did Car of Cambridge, and Ascham, with their lectures and writings, almost deify Cicero and Demosthenes, and allure all young men that were studious, unto that delicate and polished kind of learning. Then did Erasmus take occasion to make the scoffing echo : *Decem annos consumpsi in legendo Cicerone ;* [*I have spent ten years in reading Cicero ;*] and the echo answered in Greek, "*Ove, Asine, [Thou donkey.]*" Then grew the learning 20 of the Schoolmen to be utterly despised as barbarous. In sum, the whole indication and bent of those times was rather towards *copia* than weight.

Here, therefore, is the first distemper of learning, when men study words, and not matter ; whereof, though I have represented an example of late times, yet it hath been, and will be, *Secundum majus et minus [in a greater or less degree]* in all time. And how is it possible but this should have an operation to discredit learning, even with vulgar capacities, when they see learned men's works like the first letter of a 30 patent, or limned book ; which though it hath large flourishes, yet it is but a letter. It seems to me that Pygmalion's frenzy is a good emblem or portraiture of this vanity : for words are but the images of matter ; and except they have life of reason and invention, to fall in love with them is all one as to fall in love with a picture.

But yet, notwithstanding, it is a thing not hastily to be condemned, to clothe and adorn the obscurity even of philosophy itself, with sensible and plausible elocution; for hereof we have great examples in Xenophon, Cicero, Seneca, Plutarch, and of Plato also in some degrees; and hereof likewise there is great use: for surely, to the severe inquisition of truth, and the deep progress into philosophy, it is some hindrance; because it is too early satisfactory to the mind of man, and quencheth the desire of further
 10 search, before we come to a just period: but then if a man be to have any use of such knowledges in civil occasions, of conference, counsel, persuasion, discourse, or the like; then shall he find it prepared to his hands in those authors which write in that manner. But the excess of this is so justly contemptible, that as Hercules, when he saw the image of Adonis, Venus' minion, in a temple, said in disdain, *Nil sacrum*; [*You are no divinity*]; so there is none of Hercules' followers in learning, that is, the more severe and laborious sort of inquirers into truth, but will despise those delicacies
 20 and affectations, as indeed capable of no divineness. And thus much of the first disease or distemper of learning.

The second, which followeth, is in nature worse than the former: for as substance of matter is better than beauty of words, so, contrariwise, vain matter is worse than vain words: wherein it seemeth the reprehension of Saint Paul was not only proper for those times, but prophetic for the times following; and not only respective to divinity, but extensive to all knowledge: *Devita profanas vocum novitates, et oppositiones falsi nominis scientiae*; [*Avoid profane novel-*
 30 *ties of terms, and oppositions of science falsely so called*]. For he assigneth two marks and badges of suspected and falsified science: the one, the novelty and strangeness of terms; the other, the strictness of positions, which of necessity doth induce oppositions, and so questions and alterations. Surely, like as many substances in nature, which are solid, do putrefy and corrupt into worms; so it is the

property of good and sound knowledge, to putrefy and dissolve into a number of subtle, idle, unwholesome, and, as I may term them, vermiculate questions, which have indeed a kind of quickness, and life of spirit, but no soundness of matter, or goodness of quality. This kind of degenerate learning did chiefly reign amongst the schoolmen : who having sharp and strong wits, and abundance of leisure, and small variety of reading, (but their wits being shut up in the cells of a few authors, chiefly Aristotle their dictator, as their persons were shut up in the cells of monasteries and 10 colleges,) and knowing little history, either of nature or time, did, out of no great quantity of matter, and infinite agitation of wit, spin out unto us those laborious webs of learning, which are extant in their books. For the wit and mind of man, if it work upon matter, which is the contemplation of the creatures of God, worketh according to the stuff, and is limited thereby ; but if it work upon itself, as the spider worketh his web, then it is endless, and brings forth indeed cobwebs of learning, admirable for the fineness of thread and work, but of no substance or profit. 20

This same unprofitable subtilty or curiosity is of two sorts ; either in the subject itself that they handle, when it is a fruitless speculation or controversy, whereof there are no small number both in divinity and philosophy, or in the manner or method of handling of a knowledge, which amongst them was this ; upon every particular position or assertion to frame objections, and to those objections, solutions ; which solutions were for the most part not confutations, but distinctions : whereas indeed the strength of all sciences is, as the strength of the old man's faggot, in the 30 band. For the harmony of a science, supporting each part the other, is and ought to be the true and brief confutation and suppression of all the smaller sort of objections. But, on the other side, if you take out every axiom, as the sticks of the faggot, one by one, you may quarrel with them, and bend them, and break them at your pleasures ; so that, as

was said of Seneca, *Verborum minutiis rerum frangit pondera*; [He breaks up the weight of the matter by his verbal subtleties:] so a man may truly say of the schoolmen, *Questionum minutiis, scientiarum frangunt soliditatem*, [They break up the solidity and coherency of the sciences by the minuteness of their questions.] For were it not better for a man in a fair room to set up one great light, or branching candlestick of lights, than to go about with a small watch-candle into every corner? And such is their method, that rests not so much
 10 upon evidence of truth proved by arguments, authorities, similitudes, examples, as upon particular confutations and solutions of every scruple, cavillation, and objection; breeding for the most part one question, as fast as it solveth another; even as in the former resemblance, when you carry the light into one corner, you darken the rest; so that the fable and fiction of Scylla seemeth to be a lively image of this kind of philosophy or knowledge; which was transformed into a comely virgin for the upper parts; but then *candida succinctam latrantibus inguina monstis*: [there were
 20 barking monsters all about her loins:] so the generalities of the schoolmen are for a while good and proportionable; but then, when you descend into their distinctions and decisions, instead of a fruitful womb, for the use and benefit of man's life, they end in monstrous altercations and barking questions. So as it is not possible but this quality of knowledge must fall under popular contempt, the people being apt to condemn truth upon occasion of controversies and altercations, and to think they are all out of their way which never meet: and when they see such digladiation about
 30 subtilities, and matters of no use or moment, they easily fall upon that judgment of Dionysius of Syracuse, *Verba ista sunt senum otiosorum*: [Those are the words of old men who have nothing to do.]

Notwithstanding, certain it is that if those schoolmen, to their great thirst of truth and unwearied travail of wit, had joined variety and universality of reading and contem-

plation, they had proved excellent lights, to the great advancement of all learning and knowledge; but as they are, they are great undertakers indeed, and fierce with dark keeping: but as in the inquiry of the divine truth, their pride inclined to leave the oracle of God's word, and to vanish in the mixture of their own inventions; so in the inquisition of nature, they ever left the oracle of God's works, and adored the deceiving and deformed images which the unequal mirror of their own minds, or a few received authors or principles, did represent unto them. 10 And thus much for the second disease of learning.

For the third vice or disease of learning, which concerneth deceit or untruth, it is of all the rest the foulest; as that which doth destroy the essential form of knowledge, which is nothing but a representation of truth: for the truth of being and the truth of knowing are one, differing no more than the direct beam and the beam reflected. This vice therefore brancheth itself into two sorts; delight in deceiving, and aptness to be deceived; imposture and credulity; which, although they appear to be of a diverse 20 nature, the one seeming to proceed of cunning, and the other of simplicity, yet certainly they do for the most part concur: for as the verse noteth,

Percontatorem fugito, nam garrulus idem est,

[*Avoid inquisitive men, for they are babblers.*]

an inquisitive man is a prattler, so, upon the like reason, a credulous man is a deceiver: as we see it in fame, that he that will easily believe rumours, will as easily augment rumours, and add somewhat to them of his own; which Tacitus wisely noteth, when he saith *Fingunt simul crea-* 30 *duntque*: [*Those who are prone to invent are also prone to believe.*] so great an affinity hath fiction and belief.

This facility of credit, and accepting or admitting things weakly authorized or warranted, is of two kinds, according to the subject: for it is either a belief of history, or, as the lawyers speak, matter of fact; or else of matter of

art and opinion. As to the former, we see the experience and inconvenience of this error in ecclesiastical history; which hath too easily received and registered reports, and narrations of miracles wrought by martyrs, hermits, or monks of the desert, and other holy men, and their relics, shrines, chapels, and images: which though they had a passage for a time, by the ignorance of the people, the superstitious simplicity of some, and the politic toleration of others holding them but as divine poesies; yet after a
 10 period of time, when the mist began to clear up, they grew to be esteemed but as old wives' fables, impostures of the clergy, illusions of spirits, and badges of Antichrist, to the great scandal and detriment of religion.

So in natural history, we see there hath not been that choice and judgment used as ought to have been; as may appear in the writings of Plinius, Cardanus, Albertus, and divers of the Arabians, being fraught with much fabulous matter, a great part not only untried, but notoriously untrue, to the great derogation of the credit of natural
 20 philosophy with the grave and sober kind of wits: wherein the wisdom and integrity of Aristotle is worthy to be observed; that, having made so diligent and exquisite a history of living creatures, hath mingled it sparingly with any vain or feigned matter: and yet, on the other side, hath cast all prodigious narrations, which he thought worthy the recording, into one book: excellently discerning that matter of manifest truth, (such, whereupon observation and rule were to be built,) was not to be mingled or weakened with matter of doubtful credit; and yet, again, that
 30 rarities and reports that seem incredible are not to be suppressed or denied to the memory of men.

And as for the facility of credit which is yielded to arts and opinions, it is likewise of two kinds; either when too much belief is attributed to the arts themselves, or to certain authors in any art. The sciences themselves, which have had better intelligence and confederacy with the

imagination of man than with his reason, are three in number ; astrology, natural magic, and alchemy : of which sciences, nevertheless, the ends or pretences are noble. For astrology pretendeth to discover that correspondence or concatenation, which is between the superior globe and the inferior : natural magic pretendeth to call and reduce natural philosophy from variety of speculations to the magnitude of worke : and alchemy pretendeth to make separation of all the unlike parts of bodies, which in mixtures of nature are incorporate. But the derivations 10 and prosecutions to these ends, both in the theories and in the practices, are full of error and vanity ; which the great professors themselves have sought to veil over and conceal by enigmatical writings, and referring themselves to auricular traditions and such other devices, to save the credit of impostures : and yet surely to alchemy this right is due, that it may be compared to the husbandman whereof *Æsop* makes the fable ; that, when he died, told his sons that he had left unto them gold buried under ground in his vineyard ; and they digged over all the ground, and gold they 20 found none ; but by reason of their stirring and digging the mould about the roots of their vines, they had a great vintage the year following : so assuredly the search and stir to make gold hath brought to light a great number of good and fruitful inventions and experiments, as well for the disclosing of nature, as for the use of man's life.

And as for the overmuch credit that hath been given unto authors in sciences, in making them dictators, that their words should stand, and not consuls to give advice ; the damage is infinite that sciences have received thereby, 30 as the principal cause that hath kept them low, at a stay without growth or advancement. For hence it hath come, that in arts mechanical the first deviser comes shortest, and time addeth and perfecteth ; but in sciences the first author goeth furthest, and time lesseth and corrupteth. So, we see, artillery, sailing, printing, and the

like, were grossly managed at the first, and by time accommodated and refined; but contrariwise, the philosophies and sciences of Aristotle, Plato, Democritus, Hippocrates, Euclides, Archimedes, of most vigour at the first and by time degenerate and imbasèd; whereof the reason is no other, but that in the former many wits and industries have contributed in one; and in the latter many wits and industries have been spent about the wit of some one, whom many times they have rather depraved than illu-
 10 trated. For as water will not ascend higher than the level of the first springhead from whence it descendeth, so knowledge derived from Aristotle, and exempted from liberty of examination, will not rise again higher than the knowledge of Aristotle. And therefore although the position be good, *Oportet discentem credere*, [*While we are learning we should believe*,] yet it must be coupled with this, *Oportet edoctum judicare*; [*After we have learnt we should judge*;] for disciples do owe unto masters only a temporary belief, and a suspension of their own judgment until they be
 20 fully instructed, and not an absolute resignation, or perpetual captivity: and therefore, to conclude this point, I will say no more, but so let great authors have their due, as time, which is the author of authors, be not deprived of his due, which is, further and further to discover truth.

Thus have I gone over these three diseases of learning; besides the which, there are some other rather peccant humours than formed diseases: which nevertheless are not so secret and intrinsic, but that they fall under a popular observation and traducement, and therefore are not to be
 30 passed over.

The first of these is the extreme affecting of two extremities: the one antiquity, the other novelty; wherein it seemeth the children of time do take after the nature and malice of the father. For as he devoureth his children, so one of them seeketh to devour and suppress the other;

while antiquity envieth there should be new additions, and novelty cannot be content to add, but it must deface: surely, the advice of the prophet is the true direction in this matter, *State super vias antiquas, et videte quænam sit via recta et bona, et ambulate in ea*: [Stand upon the ancient paths and see which is the straight and good road, and walk in it.] Antiquity deserveth that reverence, that men should make a stand thereupon, and discover what is the best way; but when the discovery is well taken, then to make progression. And to speak truly, *Antiquitas sæculi juvenus mundi*: [Old times were the youth of the world.] These times are the ancient times, when the world is ancient, and not those which we account ancient *ordine retrogrado*, by a computation backward from ourselves.

Another error, induced by the former, is a distrust that any thing should be now to be found out, which the world should have missed and passed over so long time; as if the same objection were to be made to time, that Lucian maketh to Jupiter and other the heathen gods; of which he wondereth that they begot so many children in 20 old time, and begot none in his time; and asketh whether they were become septuagenary, or whether the law *Papia*, made against old men's marriages, had restrained them. So it seemeth men doubt lest time is become past children and generation; wherein, contrariwise, we see commonly the levity and inconstancy of men's judgments, which, till a matter be done, wonder that it can be done; and, as soon as it is done, wonder again that it was no sooner done: as we see in the expedition of Alexander into Asia, which at first was prejudged as a vast and impossible enterprise: 30 and yet afterwards it pleaseth Livy to make no more of it than this, *Nil aliud quam bene ausus vana contemnere*: [He simply ventured to despise idle fears:] and the same happened to Columbus in the western navigation. But in intellectual matters it is much more common; as may be seen in most of the propositions of Euclid: which till they be demonstrate,

they seem strange to our assent ; but being demonstrate, our mind accepteth of them by a kind of relation (as the lawyers speak) as if we had known them before.

Another error, that hath also some affinity with the former, is a conceit that of former opinions or sects, after variety and examination, the best hath still prevailed, and suppressed the rest ; so as, if a man should begin the labour of a new search, he were but like to light upon somewhat formerly rejected, and by rejection brought
10 into oblivion : as if the multitude, or the wisest for the multitude's sake, were not ready to give passage rather to that which is popular and superficial, than to that which is substantial and profound ; for the truth is, that time seemeth to be of the nature of a river or stream, which carrieth down to us that which is light and blown up, and sinketh and drowneth that which is weighty and solid.

Another error, of a diverse nature from all the former, is the over early and peremptory reduction of knowledge into arts and methods ; from which time com-
20 monly sciences receive small or no augmentation. But as young men, when they knit and shape perfectly, do seldom grow to a further stature ; so knowledge, while it is in aphorisms and observations, it is in growth : but when it once is comprehended in exact methods, it may perchance be further polished and illustrated, and accommodated for use and practice ; but it increaseth no more in bulk and substance.

Another error which doth succeed that which we last mentioned, is, that after the distribution of particular arts
30 and sciences, men have abandoned universality, or *philosophia prima* : [*first philosophy* :] which cannot but cease and stop all progression. For no perfect discovery can be made upon a flat or a level : neither is it possible to discover the more remote and deeper parts of any science, if you stand but upon the level of the same science, and ascend not to a higher science.

Another error hath proceeded from too great a reverence, and a kind of adoration of the mind and understanding of man ; by means whereof, men have withdrawn themselves too much from the contemplation of nature, and the observations of experience, and have tumbled up and down in their own reason and conceits. Upon these intellectualists, which are, notwithstanding, commonly taken for the most sublime and divine philosophers, Heraclitus gave a just censure, saying, *Men sought truth in their own little worlds, and not in the great and common world* ; for they disdain 10 to spell, and so by degrees to read in the volume of God's works : and contrariwise, by continual meditation, and agitation of wit, do urge and as it were invoke their own spirits to divine, and give oracles unto them, whereby they are deservedly deluded.

Another error that hath some connection with this latter, is, that men have used to infect their meditations, opinions, and doctrines, with some conceits which they have most admired, or some sciences which they have most applied ; and given all things else a tincture according to 20 them, utterly untrue and improper. So hath Plato intermingled his philosophy with theology, and Aristotle with logic ; and the second school of Plato, Proclus and the rest, with the mathematics. For these were the arts which had a kind of primogeniture with them severally. So have the alchemists made a philosophy out of a few experiments of the furnace ; and Gilbertus, our countryman, hath made a philosophy out of the observations of a loadstone. So Cicero, when, reciting the several opinions of the nature of the soul, he found a musician that held the soul was but a harmony, 30 saith pleasantly, *Hic ab arte sua non recessit*, [*This man is faithful to his art*,] etc. But of these conceits Aristotle speaketh seriously and wisely, when he saith, *Qui respiciunt ad pauca de facili pronunciant* : [*Men, who only take a few things into consideration, find it easy to give an opinion*.]

Another error is an impatience of doubt, and haste to

assertion without due and mature suspension of judgment. For the two ways of contemplation are not unlike the two ways of action, commonly spoken of by the ancients; the one plain and smooth in the beginning, and in the end impassable; the other rough and troublesome in the entrance, but after a while fair and even: so it is in contemplation; if a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties.

- 10 Another error is in the manner of the tradition and delivery of knowledge, which is for the most part magistral and peremptory, and not ingenuous and faithful; in a sort as may be soonest believed, and not easiliest examined. It is true, that in compendious treatises for practice, that form is not to be disallowed: but in the true handling of knowledge, men ought not to fall either, on the one side, into the vein of Velleius the Epicurean, *Nil tam metuens, quam ne dubitare aliqua de re videretur*: [*Fearing nothing so much as that he might seem to be in doubt about anything*.] nor, on the other
20 side, into Socrates his ironical doubting of all things; but to propound things sincerely, with more or less asseveration, as they stand in a man's own judgment proved more or less.

Other errors there are in the scope that men propound to themselves, whereunto they bend their endeavours; for whereas the more constant and devoted kind of professors of any science ought to propound to themselves to make some additions to their science, they convert their labours to aspire to certain second prizes; as to be a profound interpreter or commenter, to be a sharp champion or defender, to be a
30 methodical compounder or abridger, and so the patrimony of knowledge cometh to be sometimes improved, but seldom augmented.

But the greatest error of all the rest is the mistaking or misplacing of the last or furthest end of knowledge: for men have entered into a desire of learning and knowledge, sometimes upon a natural curiosity and inquisitive appetite;

sometimes to entertain their minds with variety and delight ; sometimes for ornament and reputation ; and sometimes to enable them to victory of wit and contradiction ; and most times for lucre and profession ; and seldom sincerely to give a true account of their gift of reason, to the benefit and use of men : as if there were sought in knowledge a couch, whereupon to rest a searching and restless spirit ; or a tarasse, for a wandering and variable mind to walk up and down with a fair prospect ; or a tower of state, for a proud mind to raise itself upon ; or a fort or commanding ground, for strife 10 and contention ; or a shop, for profit or sale ; and not a rich storehouse, for the glory of the Creator, and the relief of man's estate. But this is that which will indeed dignify and exalt knowledge, if contemplation and action may be more nearly and straitly conjoined and united together than they have been ; a conjunction like unto that of the two highest planets, Saturn, the planet of rest and contemplation, and Jupiter, the planet of civil society and action : howbeit, I do not mean, when I speak of use and action, that end before-mentioned of the applying of knowledge to lucre and 20 profession ; for I am not ignorant how much that diverteth and interrupteth the prosecution and advancement of knowledge, like unto the golden ball thrown before Atalanta, which while she goeth aside and stoopeth to take up, the race is hindered ;

Declinat cursus, aurumque volubile tollit :

[*She goes aside from her course, and picks up the rolling gold.*] Neither is my meaning, as was spoken of Socrates, to call philosophy down from heaven to converse upon the earth ; that is, to leave natural philosophy aside, and to apply 30 knowledge only to manners and policy. But as both heaven and earth do conspire and contribute to the use and benefit of man ; so the end ought to be, from both philosophies to separate and reject vain speculations, and whatsoever is empty and void, and to preserve and augment whatsoever is solid and fruitful ; that knowledge may not be, as a courtesan,

for pleasure and vanity only, or as a bond-woman, to acquire and gain to her master's use ; but as a spouse, for generation, fruit, and comfort.

Thus have I described and opened, as by a kind of dissection, those peccant humours, (the principal of them,) which have not only given impediment to the proficience of learning, but have given also occasion to the traducement thereof : wherein, if I have been too plain, it must be remembered, *Fidelis vulnera amantis, sed dolosa oscula malignantis* :
 10 [*Faithful are the wounds of a friend, but the kisses of an enemy are deceitful.*] This, I think, I have gained, that I ought to be the better believed in that which I shall say pertaining to commendation ; because I have proceeded so freely in that which concerneth censure. And yet I have no purpose to enter into a laudative of learning, or to make a hymn to the Muses ; (though I am of opinion that it is long since their rites were duly celebrated :) but my intent is, without varnish or amplification, justly to weigh the dignity of knowledge in the balance with other things, and to take the true
 20 value thereof by testimonies and arguments divine and human.

First, therefore, let us seek the dignity of knowledge in the archetype or first platform, which is in the attributes and acts of God, as far as they are revealed to man, and may be observed with sobriety ; wherein we may not seek it by the name of learning ; for all learning is knowledge acquired, and all knowledge in God is original : and therefore we must look for it by another name, that of wisdom or sapience, as the Scriptures call it.

30 It is so then, that in the work of the creation we see a double emanation of virtue from God ; the one referring more properly to power, the other to wisdom ; the one expressed in making the subsistence of the matter, and the other in disposing the beauty of the form. This being supposed, it is to be observed that for anything which appeareth in the

history of the creation, the confused mass and matter of heaven and earth was made in a moment ; and the order and disposition of that chaos or mass was the work of six days ; such a note of difference it pleased God to put upon the works of power, and the works of wisdom ; wherewith concurrcth, that in the former it is not set down that God said, *Let there be heaven and earth*, as it is set down of the works following ; but actually, that God made heaven and earth : the one carrying the style of a manufacture, and the other of a law, decree, or counsel. 10

To proceed to that which is next in order from God to spirits ; we find, as far as credit is to be given to the celestial hierarchy of that supposed Dionysius the senator of Athens, the first place or degree is given to the angels of love, which are termed seraphim ; the second to the angels of light, which are termed cherubim ; and the third, and so following places, to thrones, principalities, and the rest, which are all angels of power and ministry ; so as the angels of knowledge and illumination are placed before the angels of office and domination. 20

To descend from spirits and intellectual forms to sensible and material forms ; we read the first form that was created was light, which hath a relation and correspondence in nature and corporal things to knowledge in spirits and incorporal things.

So in the distribution of days, we see, the day wherein God did rest, and contemplate his own works, was blessed above all the days wherein he did effect and accomplish them.

After the creation was finished, it is set down unto us, 30 that man was placed in the garden to work therein ; which work, so appointed to him, could be no other than work of contemplation ; that is, when the end of work is but for exercise and experiment, not for necessity ; for there being then no reluctance of the creature, nor sweat of the brow, man's employment must of consequence have been matter of

delight in the experiment, and not matter of labour for the use. Again, the first acts which man performed in Paradise consisted of the two summary parts of knowledge; the view of creatures, and the imposition of names. As for the knowledge which induced the fall, it was, as was touched before, not the natural knowledge of creatures, but the moral knowledge of good and evil; wherein the supposition was, that God's commandments or prohibitions were not the originals of good and evil, but that they had other beginnings, which 10 man aspired to know; to the end to make a total defection from God, and to depend wholly upon himself.

To pass on: in the first event or occurrence after the fall of man, we see, (as the Scriptures have infinite mysteries, not violating at all the truth of the story or letter,) an image of the two estates, the contemplative state and the active state, figured in the two persons of Abel and Cain, and in the two simplest and most primitive trades of life; that of the shepherd, (who, by reason of his leisure, rest in a place, and living in view of heaven, is a lively image of a contemplative 20 life,) and that of the husbandman: where we see again the favour and election of God went to the shepherd, and not to the tiller of the ground.

So in the age before the flood, the holy records within those few memorials which are there entered and registered, have vouchsafed to mention and honour the name of the inventors and authors of music and works in metal. In the age after the flood, the first great judgment of God upon the ambition of man was the confusion of tongues; whereby the open trade and intercourse of learning and knowledge was 30 chiefly imbarred.

To descend to Moses the lawgiver, and God's first pen: he is adorned by the Scriptures with this addition and commendation, *That he was seen in all the learning of the Egyptians*; which nation, we know, was one of the most ancient schools of the world: for so Plato brings in the Egyptian priest saying unto Solon: *You Grecians are ever*

children; you have no knowledge of antiquity, nor antiquity of knowledge. Take a view of the ceremonial law of Moses; you shall find, besides the prefiguration of Christ, the badge or difference of the people of God, the exercise and impression of obedience, and other divine uses and fruits thereof, that some of the most learned Rabbins have travailed profitably and profoundly to observe some of them a natural, some of them a moral, sense or reduction of many of the ceremonies and ordinances. As in the law of the leprosy, where it is said, *If the whiteness have overpread the flesh, the patient may* 10 *pass abroad for clean; but if there be any whole flesh remaining, he is to be shut up for unclean;* one of them noteth a principle of nature, that putrefaction is more contagious before maturity than after; and another noteth a position of moral philosophy, that men abandoned to vice, do not so much corrupt manners, as those that are half good and half evil. So in this and very many other places in that law, there is to be found, besides the theological sense, much aspersion of philosophy.

So likewise in that excellent book of Job, if it be 20 revolved with diligence, it will be found pregnant and swelling with natural philosophy; as for example, cosmography, and the roundness of the world, *Qui extendit aquilonem super vacuum, et appendit terram super nihilum;* [*He stretcheth out the North over the empty place, and hangeth the earth upon nothing;*] wherein the pensileness of the earth, the pole of the north, and the finiteness or convexity of heaven are manifestly touched. So again, matter of astronomy; *Spiritus ejus ornavit celos, et obetetricante manu ejus educatus est coluber tortuosus:* [*By his spirit he hath* 30 *garnished the heavens: his hand hath formed the crooked serpent.*] And in another place; *Nunquid conjungere valebis micantes stellus Pleiadas, aut gyrum Arcturi poteris dissipare?* [*Canst thou bring together the glittering stars of the Pleiades, or scatter the array of Arcturus?*] Where the fixing of the stars, ever standing at equal distance, is with great elegancy noted.

And in another place, *Qui facit Arcturum, et Oriona, et Hyadas, et interiora Austri*; [who maketh Arcturus, Orion, and Hyades, and the secrets of the South;] where again he takes knowledge of the depression of the southern pole, calling it the secrets of the south, because the southern stars were in that climate unseen. Matter of generation; *Annon sicut lac mulsisti me, et sicut caseum coagulasti me?* [Hast thou not poured me out as milk, and curdled me like cheese?] etc. Matter of minerals; *Habet argentum venarum suarum principia: et auro locus est in quo conflatur, ferrum de terra tollitur, et lapis solutus calore in aes vertitur*: [Surely there is a vein for the silver, and a place for gold where they find it. Iron is taken out of the earth, and brass is molten out of the stone:] and so forwards in that chapter.

So likewise in the person of Solomon the king, we see the gift or endowment of wisdom and learning, both in Solomon's petition, and in God's assent thereunto, preferred before all other terrene and temporal felicity. By virtue of which grant or donative of God Solomon became enabled, not only to write those excellent parables, or aphorisms concerning divine and moral philosophy; but also to compile a natural history of all verdure, from the cedar upon the mountain to the moss upon the wall, (which is but a rudiment between putrefaction and an herb,) and also of all things that breathe or move. Nay, the same Solomon the king, although he excelled in the glory of treasure and magnificent buildings, of shipping and navigation, of service and attendance, of fame and renown, and the like, yet he maketh no claim to any of those glories, but only to the glory of inquisition of truth; for so he saith expressly, *The glory of God is to conceal a thing, but the glory of the king is to find it out*; as if, according to the innocent play of children, the Divine Majesty took delight to hide his works, to the end to have them found out; and as if kings could not obtain a greater honour than to be God's playfellows in that game; considering the great

commandment of wits and means, whereby nothing needeth to be hidden from them.

Neither did the dispensation of God vary in the times after our Saviour came into the world ; for our Saviour himself did first show his power to subdue ignorance, by his conference with the priests and doctors of the law, before he showed his power to subdue nature by his miracles. And the coming of the Holy Spirit was chiefly figured and expressed in the similitude and gift of tongues, which are but *vehicula scientiæ* : [*the carriers of knowledge.*] 10

So in the election of those instruments, which it pleased God to use for the plantation of the faith, notwithstanding that at the first he did employ persons altogether unlearned, otherwise than by inspiration, more evidently to declare his immediate working, and to abase all human wisdom or knowledge ; yet, nevertheless, that counsel of his was no sooner performed, but in the next vicissitude and succession he did send his divine truth into the world, waited on with other learnings, as with servants or handmaids : for so we see St. Paul, who was the only learned amongst the Apostles, 20 had his pen most used in the Scripture of the New Testament.

So again, we find that many of the ancient bishops and fathers of the Church were excellently read, and studied in all the learning of the heathen ; insomuch, that the edict of the Emperor Julianus, whereby it was interdicted unto Christians to be admitted into schools, lectures, or exercises of learning, was esteemed and accounted a more pernicious engine and machination against the Christian Faith, than were all the sanguinary prosecutions of his predecessors ; 30 neither could the emulation and jealousy of Gregory the first of that name, Bishop of Rome, ever obtain the opinion of piety or devotion ; but contrariwise received the censure of humour, malignity, and pusillanimity, even amongst holy men ; in that he designed to obliterate and extinguish the memory of heathen antiquity and authors. But contrariwise,

it was the Christian Church, which, amidst the inundations of the Scythians on the one side from the north-west, and the Saracens from the east, did preserve in the sacred lap and bosom thereof, the precious relics even of heathen learning, which otherwise had been extinguished, as if no such thing had ever been.

And we see before our eyes, that in the age of ourselves and our fathers, when it pleased God to call the Church of Rome to account for their degenerate manners and ceremonies, and sundry doctrines obnoxious, and framed to uphold the same abuses; at one and the same time it was ordained by the Divine Providence, that there should attend withal a renovation and new spring of all other knowledges; and, on the other side we see the Jesuits, (who partly in themselves, and partly by the emulation and provocation of their example, have much quickened and strengthened the state of learning,) we see, I say, what notable service and reparation they have done to the Roman see.

Whereof, to conclude this part, let it be observed, that there be two principal duties and services, besides ornament and illustration, which philosophy and human learning do perform to faith and religion. The one, because they are an effectual inducement to the exaltation of the glory of God: for as the Psalms and other Scriptures do often invite us to consider and magnify the great and wonderful works of God; so if we should rest only in the contemplation of the exterior of them, as they first offer themselves to our senses, we should do a like injury unto the majesty of God, as if we should judge or construe of the store of some excellent jeweller, by that only which is set out toward the street in his shop. The other, because they minister a singular help and preservative against unbelief and error: for our Saviour saith, *You err, not knowing the Scriptures, nor the power of God*; laying before us two books or volumes to study, if we will be secured from error; first, the Scriptures, revealing the will of God; and then the creatures expressing his

power ; whereof the latter is a key unto the former : not only opening our understanding to conceive the true sense of the Scriptures, by the general notions of reason and rules of speech ; but chiefly opening our belief, in drawing us into a due meditation of the omnipotency of God, which is chiefly signed and engraven upon his works. Thus much therefore for divine testimony and evidence concerning the true dignity and value of learning.

As for human proofs, it is so large a field, as, in a discourse 10 of this nature and brevity, it is fit rather to use choice of those things which we shall produce, than to embrace the variety of them. First, therefore, in the degrees of human honour amongst the heathen, it was the highest to obtain to a veneration and adoration as a God. This unto the Christians is as the forbidden fruit. But we speak now separately of human testimony : according to which, that which the Grecians call *apotheosis*, and the Latins *relatio inter divos*, [*deification*,] was the supreme honour which man could attribute unto man : especially when it was given, not by a 20 formal decree or act of state, as it was used among the Roman emperors, but by an inward assent and belief. Which honour, being so high, had also a degree or middle term : for there were reckoned, above human honours, honours heroical and divine : in the attribution and distribution of which honours, we see, antiquity made this difference : that whereas founders and uniters of states and cities, lawgivers, extirpers of tyrants, fathers of the people, and other eminent persons in civil merit, were honoured but with the titles of worthies or demi-gods ; such as were Hercules, Theseus, Minos, 30 Romulus, and the like : on the other side, such as were inventors and authors of new arts, endowments, and commodities towards man's life, were ever consecrated amongst the gods themselves ; as were Ceres, Bacchus, Mercurius, Apollo, and others : and justly ; for the merit of the former is confined within the circle of an age or a nation ; and is like

fruitful showers, which though they be profitable and good, yet serve but for that season, and for a latitude of ground where they fall ; but the other is indeed like the benefits of heaven, which are permanent and universal. The former, again, is mixed with strife and perturbation ; but the latter hath the true character of Divine Presence ; coming in *aura leni*, [*with gentle breath*,] without noise or agitation.

Neither is certainly that other merit of learning, in repressing the inconveniences which grow from man to man, 10 much inferior to the former, of relieving the necessities which arise from nature ; which merit was lively set forth by the ancients in that feigned relation of Orpheus' theatre, where all beasts and birds assembled ; and, forgetting their several appetites, some of prey, some of games, some of quarrel, stood all sociably together listening to the airs and accords of the harp ; the sound whereof no sooner ceased, or was drowned by some louder noise, but every beast returned to his own nature : wherein is aptly described the nature and condition of men, who are full of savage and unreclaimed desires, of 20 profit, of lust, of revenge ; which as long as they give ear to precepts, to laws, to religion, sweetly touched with eloquence and persuasion of books, of sermons, of harangues, so long is society and peace maintained ; but if these instruments be silent, or that sedition and tumult make them not audible, all things dissolve into anarchy and confusion.

But this appeareth more manifestly, when kings themselves, or persons of authority under them, or other governors in commonwealths and popular estates, are endued with learning. For although he might be thought partial to his 30 own profession, that said, *Then should people and estates be happy, when either kings were philosophers, or philosophers kings* ; yet so much is verified by experience, that under learned princes and governors there have been ever the best times ; for howsoever kings may have their imperfections in their passions and customs ; yet, if they be illuminate by learning, they have those notions of religion, policy, and

morality, which do preserve them and refrain them from all ruinous and peremptory errors and excesses; whispering svermore in their ears, when counsellors and servants stand mute and silent. And senators or counsellors likewise, which be learned, do procced upon more safe and substantial principles, than counsellors which are only men of experience; the one eort keeping dangers afar off, whereas the other discover them not till they come near hand, and then trust to the agility of their wit to ward off or avoid them.

Which felicity of times under learned princes, (to kseep 10 still the law of brevity, by using the most sminent and selected examples,) doth best appear in the ags which passed from the death of Domitian the emperor until the reign of Commodus; comprehending a succession of six princes, all learned, or singular favourers and advancers of learning; which age, for temporal respects, was the most happy and flourishing that ever the Roman empire (which then was a model of the world) enjoyed: a matter revealed and prefigured unto Domitian in a dream the night before he was slain; for he thought there was grown behind upon his 20 shoulders a neck and a head of gold: which came accordingly to pass in those golden times which succeeded: of which princes we will make some commemoration; wherein although the matter will be vulgar, and may be thought fitter for a declamation than agreeable to a treatise infolded as this is, yet because it is pertinent to the point in hand, *Neque semper arcum tendit Apollo*, [And Apollo is not always stretching his bow,] and to name them only were too naked and cursory, I will not omit it altogether. The first was Nsrva; the excellent temper of whose government is by a glance in 30 Cornelius Tacitus touched to the life: *Postquam divus Nerva res olim insociabiles miscuisset, imperium et libertatem*: [When the divine Nerva had reconciled things which did not go together before, namely, authority and liberty.] And in token of his learning, the last act of his short reign, left to memory, was a missive to his adopted son Trajan, procceding upon

some inward discontent at the ingratitude of the times, comprehended in a verse of Homer's :

Telis, Phæbe, tuis lacrymas ulciscere nostras :

[*O Phæbus, by thy shafts avenge these tears.*]

Trajan, who succeeded, was for his person not learned ; but if we will hearken to the speech of our Saviour, that saith, *He that receiveth a prophet in the name of a prophet, shall have a prophet's reward*, he deserveth to be placed amongst the most learned princes : for there was not a
10 greater admirer of learning, or benefactor of learning ; a founder of famous libraries, a perpetual advancer of learned men to office, and a familiar converser with learned professors and preceptors, who were noted to have then most credit in court. On the other side, how much Trajan's virtue and government was admired and renowned, surely no testimony of grave and faithful history doth more lively set forth, than that legend tale of Gregorius Magnus, bishop of Rome, who was noted for the extreme envy he bore towards all
20 heathen excellency ; and yet he is reported, out of the love and estimation of Trajan's moral virtues, to have made unto God passionate and fervent prayers for the delivery of his soul out of hell ; and to have obtained it, with a caveat that he should make no more such petitions. In this prince's time also, the persecutions against the Christians received intermission, upon the certificate of Plinius Secundus, a man of excellent learning, and by Trajan advanced.

Adrian, his successor, was the most curious man that lived, and the most universal inquirer ; insomuch as it was noted for an error in his mind, that he desired to comprehend all
30 things, and not to reserve himself for the worthiest things : falling into the like humour that was long before noted in Philip of Macedon ; who, when he would needs over-rule and put down an excellent musician in an argument touching music, was well answered by him again, *God forbid, sir*, saith he, *that your fortune should be so bad, as to know these things better than I*. It pleased God likewise to use the curiosity

of this emperor as an inducement to the peace of his Church in those days. For having Christ in veneration, not as a God or Saviour, but as a wonder or novelty ; and having his picture in his gallery, matched with Apollonius, with whom, in his vain imagination, he thought he had some conformity ; yet it served the turn to allay the bitter hatred of those times against the Christian name, so as the church had peace during his time. And for his government civil, although he did not attain to that of Trajan's in glory of arms, or perfection of justice, yet in deserving of the weal of the 10 subject he did exceed him. For Trajan erected many famous monuments and buildings ; insomuch as Constantine the Great in emulation was wont to call him *Parietaria*, (wall flower), because his name was upon so many walls : but his buildings and works were more of glory and triumph than use and necessity. But Adrian spent his whole reign, which was peaceable, in a perambulation or survey of the Roman empire ; giving order, and making assignation where he went, for re-edifying of cities, towns, and forts decayed ; and for cutting of rivers and streams, and for making 20 bridges and passages, and for policying of cities and commonalties with new ordinances and constitutions, and granting new franchises and incorporations ; so that his whole time was a very restoration of all the lapses and decays of former times.

Antoninus Pius, who succeeded him, was a prince excellently learned ; and had the patient and subtle wit of a schoolman ; insomuch as in common speech, which leaves no virtue untaxed, he was called *Cymini Sector*, (a carver or divider of cummin,) which is one of the least seeds ; such 30 a patience he had and settled spirit, to enter into the least and most exact differences of causes ; a fruit no doubt of the exceeding tranquillity and serenity of his mind ; which being no ways charged or incumbered, either with fears, remorse, or scruples, but having been noted for a man of the purest goodness, without all fiction or affectation, that

hath reigned or lived, made his mind continually present and entire. He likewise approached a degree nearer unto Christianity, and became, as Agrippa said unto St. Paul, *half a Christian*; holding their religion and law in good opinion, and not only ceasing persecution, but giving way to the advancement of Christians.

There succeeded him the first *Divi fratres*, [*Divine brothers*,] the two adoptive brethren, Lucius Commodus Verus, (son to Ælius Verus, who delighted much in the softer kind of learning, and was wont to call the poet Martial his Virgil,) and Marcus Aurelius Antoninus; whereof the latter, who obscured his colleague and survived him long, was named the Philosopher: who, as he excelled all the rest in learning, so he excelled them likewise in perfection of all royal virtues; insomuch as Julianus the emperor, in his book intituled *Cæsares*, being as a pasquin or satire to deride all his predecessors, feigned that they were all invited to a banquet of the gods, and Silenus the jester sat at the netlier end of the table, and bestowed a
 20 scoff on every one as they came in; but when Marcus Philosophus came in, Silenus was gravelled, and out of countenance, not knowing where to carp at him; save at the last he gave a glance at his patience towards his wife. And the virtue of this prince, continued with that of his predecessor, made the name of Antoninus so sacred in the world, that though it were extremely dishonoured in Commodus, Caracalla, and Heliogabalus, who all bore the name, yet when Alexander Severus refused the name, because he was a stranger to the family, the senate with one
 30 acclamation said, *Quomodo Augustus, sic et Antoninus*: [*Let the name of Antoninus be as the name of Augustus*.] In such renown and veneration was the name of these two princes, in those days, that they would have had it as a perpetual addition in all the emperor's styles. In this emperor's times also the Church for the most part was in peace; so as in this sequence of six princes we do see the blessed effects of

learning in sovereignty, painted forth in the greatest table of the world.

But for a tablet, or picture of smaller volume, (not presuming to speak of your Majesty that liveth,) in my judgment the most excellent is that of Queen Elizabeth, your immediate predecessor in this part of Britain; a prince that, if Plutarch were now alive to write lives by parallels, would trouble him, I think, to find for her a parallel amongst women. This lady was endued with learning in her sex singular, and rare even amongst masculine princes; 10 whether we speak of learning, language, or of science, modern or ancient, divinity or humanity: and unto the very last year of her life she was accustomed to appoint set hours for reading, scarcely any young student in a university more daily, or more duly. As for her government, I assure myself, I shall not exceed, if I do affirm that this part of the island never had forty-five years of better times; and yet not through the calmness of the season, but through the wisdom of her regiment. For if there be considered of the one side, the truth of religion established, the constant peace 20 and security, the good administration of justice, the temperate use of the prerogative, not slackened, nor much strained, the flourishing state of learning, sortable to so excellent a patroness, the convenient estate of wealth and means, both of crown and subject, the habit of obedience, and the moderation of discontents; and there be considered on the other side the differences of religion, the troubles of neighbour countries, the ambition of Spain, and opposition of Rome; and then, that she was solitary and of herself: these things, I say, considered, as I could not have chosen an 30 instance so recent and so proper, so, I suppose, I could not have chosen one more remarkable or eminent to the purpose now in hand, which is concerning the conjunction of learning in the prince with felicity in the people.

Neither hath learning an influence and operation only upon civil merit and moral virtue, and the arts or tempera-

ture of peace and peaceable government; but likewise it hath no less power and efficacy in enablement towards martial and military virtue and prowess; as may be notably represented in the examples of Alexander the Great, and Cæsar the Dictator, mentioned before, but now in fit place to be resumed; of whose virtues and acts in war there needs no note or recital, having been the wonders of time in that kind: but of their affections towards learning, and perfections in learning, it is pertinent to say somewhat.

- 10 Alexander was bred and taught under Aristotle the great philosopher, who dedicated divers of his books of philosophy unto him: he was attended with Callisthenes and divers other learned persons, that followed him in camp, throughout his journeys and conquests. What price and estimation he had learning in doth notably appear in these three particulars: first, in the curvy he used to express that he bore towards Achilles, in this, that he had so good a trumpet of his praises as Homer's verses: secondly, in the judgment or solution he gave touching that precious cabinet
20 of Darius, which was found among his jewels; whereof question was made what thing was worthy to be put into it; and he gave his opinion for Homer's works: thirdly, in his letter to Aristotle, after he had set forth his books of nature, wherein he expostulated with him for publishing the secrets or mysteries of philosophy; and gave him to understand that himself esteemed it more to excel other men in learning and knowledge than in power and empire. And what use he had of learning doth appear, or rather shine, in all his speeches and answers, being full of science, and use of
30 science, and that in all variety.

And herein again it may seem a thing scholastical, and somewhat idle, to recite things that every man knoweth; but yet, since the argument I handle leadeth me thereunto, I am glad that men shall perceive I am as willing to flatter, if they will so call it, an Alexander, or a Cæsar, or an Antoninus, that are dead many hundred years since, as any that now

liveth : for it is the displaying of the glory of learning in sovereignty that I propound to myself, and not a humour of declaiming in any man's praises. Observe then the speech he used of Diogenes, and see if it tend not to the true state of one of the greatest questions of moral philosophy ; whether the enjoying of outward things, or the contemning of them, be the greatest happiness : for when he saw Diogenes so perfectly contented with so little, he said to those that mocked at his condition, *Were I not Alexander, I would wish to be Diogenes.* But Seneca inverteth it, and saith : *Plus erat quod hic nollet accipere quam ille posset dare.* (There were more things which Diogenes would have refused, than those were which Alexander could have given or enjoyed.)

Observe again that speech which was usual with him, *That he felt his mortality chiefly in two things, sleep and lust ;* and see if it were not a speech extracted out of the depth of natural philosophy, and liker to have come out of the mouth of Aristotle or Democritus, than from Alexander.

See again that speech of humanity and poesy ; when upon the bleeding of his wounds, he called unto him one of 20 his flatterers, that was wont to ascribe to him divine honour, and said, *Look, this is very blood ; this is not such a liquor as Homer speaketh of, which ran from Venus' hand, when it was pierced by Diomedes.*

See likewise his readiness in reprehension of logic, in the speech he used to Cassander, upon a complaint that was made against his father Antipater : for when Alexander happened to say, *Do you think these men would have come from so far to complain, except they had just cause of grief ?* and Cassander answered, *Yea, that was the matter, because* 30 *they thought they should not be disproved.* Said Alexander laughing : *See the subtilties of Aristotle, to take a matter both ways, pro et contra, [for and against,] etc.*

But note again how well he could use the same art, which he reprehended, to serve his own humour : when bearing a secret grudge to Callisthenes, because he was

against the new ceremony of his adoration, feasting one night where the same Callisthenes was at the table, it was moved by some after-supper, for entertainment sake, that Callisthenes, who was an eloquent man, might speak of some theme or purpose, at his own choice : which Callisthenes did : choosing the praise of the Macedonian nation for his discourse, and performing the same with so good manner, as the hearers were much ravished : whereupon Alexander, nothing pleased, said, *It was easy to be eloquent upon so good a subject. But,* 10 *saith he, turn your style, and let us hear what you can say against us :* which Callisthenes presently undertook, and did with that sting and life, that Alexander interrupted him, and said, *The goodness of the cause made him eloquent before, and despite made him eloquent then again.*

Consider further, for tropes of rhetoric, that excellent use of a metaphor or translation, wherewith he taxed Antipater, who was an imperious and tyrannous governor : for when one of Antipater's friends commended him to Alexander for his moderation, that he did not degenerate, as his other 20 lieutenants did, into the Persian pride, in use of purple, but kept the ancient habit of Macedon, of black ; *True,* saith Alexander, *but Antipater is all purple within.* Or that other, when Parmenio came to him in the plain of Arbela, and showed him the innumerable multitude of his enemies, especially as they appeared by the infinite number of lights, as it had been a new firmament of stars, and thereupon advised him to assail them by night : whereupon he answered, *That he would not steal the victory.*

For matter of policy, weigh that significant distinction, 30 so much in all ages embraced, that he made between his two friends, Hephæstion and Craterus, when he said, *That the one loved Alexander, and the other loved the king :* describing the principal difference of princes' best servants, that some in affection love their person, and others in duty love their crown.

Weigh also that excellent taxation of an error, ordinary

with counsellors of princes, that they counsel their masters according to the model of their own mind and fortune, and not of their masters'; when, upon Darius's great offers, Parmenio had said, *Surcly I would accept these offers, were I as Alexander*; saith Alexander, *So would I, were I as Parmenio*.

Lastly, weigh that quick and acute reply, which he made when he gave so large gifts to his friends and servants, and was asked what he did reserve for himself, and he answered, *Hops*: weigh, I say, whether he had not cast up his account aright, because *hope* must be the portion of all 10 that resolve upon great enterprises. For this was Cæsar's portion when he went first into Gaul, his estate being then utterly overthrown with largesses. And this was likewise the portion of that noble prince, howsoever transported with ambition, Henry Duke of Guise, of whom it was usually said, that he was the greatest usurer in France, because he had turned all his estate into obligations.

To conclude, therefore: as certain critics are used to say hyperbolically, *That if all sciences were lost they might be found in Virgil*! so certainly this may be said truly, there 20 are the prints and footsteps of learning in those few speeches which are reported of this prince: the admiration of whom, when I consider him not as Alexander the Great, but as Aristotle's scholar, hath carried me too far.

As for Julius Cæsar, the excellency of his learning needeth not to be argued from his education, or his company, or his speeches; but in a further degree doth declare itself in his writings and works; whereof some are extant and permanent, and some unfortunately perished. For, first, we see, there is left unto us that excellent history of his own 30 wars, which he intituled only a *Commentary*, wherein all succeeding times have admired the solid weight of matter, and the real passages and lively images of actions and persons, expressed in the greatest propriety of words and perspicuity of narration that ever was; which that it was not the effect of a natural gift, but of learning and precept,

is well witnessed by that work of his, intituled, *De Analogia*, [*On Analogy*,] being a grammatical philosophy, wherein he did labour to make this same *vox ad placitum* [conventional speech] to become *vox ad licitum*, [correct speech,] and to reduce custom of speech to congruity of speech; and took, as it were, the pictures of words from the life of reason.

So we receive from him, as a monument both of his power and learning, the then reformed computation of the year; well expressing that he took it to be as great a glory to himself to observe and know the law of the heavens, as to give law to men upon the earth.

So likewise in that book of his, *Anti-Cato*, it may easily appear that he did aspire as well to victory of wit as victory of war: undertaking therein a conflict against the greatest champion with the pen that then lived, Cicero the orator.

So again in this book of Apophthegms, which he collected, we see that he esteemed it more honour to make himself but a pair of tables, to take the wise and pithy 20 words of others, than to have every word of his own to be made an apophthegm or an oracle: as vain princes, by custom of flattery, pretend to do. And yet if I should enumerate divers of his speeches, as I did those of Alexander, they are truly such as Solomon noteth, when he saith, *Verba sapientum tanquam aculei, et tanquam clavi in altum defixi*: [*The words of the wise are as goads and as nails driven deep in*.] whereof I will only recite three, not so delectable for elegance, but admirable for vigour and efficacy.

30 As, first, it is reason he be thought a master of words, that could with one word appease a mutiny in his army, which was thus: The Romans, when their generals did speak to their army, did use the word *Milites*, [*Soldiers*,] but when the magistrates spake to the people, they did use the word, *Quirites*, [*Citizens*.] The soldiers were in tumult, and seditiously prayed to be cashiered; not that they so

meant, but by expostulation thereof to draw Cæsar to other conditions ; wherein he being resolute not to give way, after some silence, he began his speech, *Ego, Quirites, [I, citizens,]* which did admit them already cashiered ; wherewith they were so surprised, crossed, and confused, as they would not suffer him to go on in his speech, but relinquished their demands, and made it their suit to be again called by the name of *Milites* : [*Soldiers.*]

The second speech was thus : Cæsar did extremely affect the name of king ; and some were set on, as he 10 passed by, in popular acclamation to salute him king ; whereupon, finding the cry weak and poor, he put it off thus, in a kind of jest, as if they had mistaken his surname ; *Non Rex sum, sed Cæsar ; [I am not King, but Cæsar ;]* a speech, that if it be searched, the life and fulness of it can scarce be expressed : for, first, it was a refusal of the name, but yet not serious : again, it did signify an infinite confidence and magnanimity, as if he presumed Cæsar was the greater title ; as by his worthiness it is come to pass till this day : but chiefly it was a speech of great allurements 20 toward his own purpose ; as if the state did strive with him but for a name, whereof mean families were vested ; for *Rex [King]* was a surname with the Romans, as well as *King* is with us.

The last speech which I will mention, was used to Metellus ; when Cæsar, after war declared, did possess himself of the city of Rome ; at which time entering into the inner treasury to take the money there accumulate, Metellus, being tribune, forbade him : whereto Cæsar said, *That if he did not desist, he would lay him dead in the place.* 30 And presently taking himself up, he added, *Adolescens, durius est mihi hoc dicere quam facere : [Young man, it is harder for me to speak it than to do it.]* A speech compounded of the greatest terror and greatest clemency that could proceed out of the mouth of man.

But to return and conclude with him ; it is evident,

himself knew well his own perfection in learning, and took it upon him; as appeared when, upon occasion that some spake what a strange resolution it was in Lucius Sylla to resign his dictatorship; he scoffing at him, to his own advantage, answered, *That Sylla could not skill of letters, and therefore knew not how to dictate.*

And here it were fit to leave this point, touching the concurrence of military virtue and learning, for what example would come with any grace after those two of
 10 Alexander and Cæsar? were it not in regard of the rareness of circumstance, that I find in one other particular, as that which did so suddenly pass from extreme scorn to extreme wonder; and it is of Xenophon the philosopher, who went from Socrates' school into Asia, in the expedition of Cyrus the younger, against king Artaxerxes. This Xenophon at that time was very young, and never had seen the wars before; neither had any command in the army, but only followed the war as a voluntary, for the love and conversation of Proxenus his friend. He was
 20 present when Falinus came in message from the great king to the Grecians, after that Cyrus was slain in the field, and they a handful of men left to themselves in the midst of the king's territories, cut off from their country by many navigable rivers, and many hundred miles. The message imported, that they should deliver up their arms, and submit themselves to the king's mercy. To which message before answer was made, divers of the army conferred familiarly with Falinus: and amongst the rest Xenophon happened to say, *Why, Falinus, we have now but*
 30 *these two things left, our arms and our virtue; and if we yield up our arms, how shall we make use of our virtue?* Whereto Falinus, smiling on him, said, *If I be not deceived, young gentleman, you are an Athenian; and I believe you study philosophy, and it is pretty that you say: but you are much abused, if you think your virtue can withstand the king's power.* Here was the scorn; the wonder followed; which

was, that this young scholar, or philosopher, after all the captains were murdered in parley by treason, conducted those ten thousand foot, through the heart of all the king's high countries, from Babylon to Græcia in safety, in despite of all the king's forces, to the astonishment of the world, and the encouragement of the Grecians in times succeeding to make invasion upon the kings of Persia: as was after purposed by Jason the Thessalian, attempted by Agesilaus the Spartan, and achieved by Alexander the Macedonian, all upon the ground of the act of that young 10 scholar.

To proceed now from imperial and military virtue to moral and private virtue: first, it is an assured truth, which is contained in the verses:

Scilicet ingenuas didicisse fideliter artes,

Emollit mores, nec sinit esse feros:

[Without doubt a faithful study of the liberal arts

Softens and humanises the character.]

It taketh away the wildness and barbarism and fierceness of men's minds; but indeed the accent had need be upon 20 *fideliter*: [*faithful*:] for a little superficial learning doth rather work a contrary effect. It taketh away all levity, temerity, and insolency, by copious suggestion of all doubts and difficulties, and acquainting the mind to balance reasons on both sides, and to turn back the first offers and conceits of the mind, and to accept of nothing but examined and tried. It taketh away vain admiration of anything, which is the root of all weakness: for all things are admired either because they are new, or because they are great. For novelty, no man that wadeth in learning or contemplation thoroughly, 30 but will find that printed in his heart, *Nil novi super terram*: [*There is nothing new on the earth.*] Neither can any man marvel at the play of puppets, that goeth behind the curtain, and adviseth well of the motion. And for magnitude, as Alexander the Great, after that he was used to great armies,

and the great conquests of the spacious provinces in Asia, when he received letters out of Greece, of some fights and services there, which were commonly for a passage, or a fort, or some walled town at the most, he said, *It seemed to him, that he was advertised of the battles of the frogs and the mice, that the old tales went of.* So certainly, if a man meditate much upon the universal frame of nature, the earth with men upon it, (the divineness of souls except,) will not seem much other than an ant-hill, whereas some ants carry corn, 10 and some carry their young, and some go empty, and all to-and-fro a little heap of dust. It taketh away or mitigateth fear of death, or adverse fortune ; which is one of the greatest impediments of virtue, and imperfections of manners. For if a man's mind be deeply seasoned with the consideration of the mortality and corruptible nature of things, he will easily concur with Epictetus, who went forth one day and saw a woman weeping for her pitcher of earth that was broken ; and went forth the next day and saw a woman weeping for her son that was dead : and thereupon said, *Hæri vidi fragilem* 20 *frangi, hodie vidi mortalem mori* : [*Yesterday I saw a brittle thing broken, to-day a mortal dead.*] And therefore Virgil did excellently and profoundly couple the knowledge of causes and the conquest of all fears together, as *Concomitantia* : [concomitants.]

*Felix, qui potuit rerum cognoscere causas,
Quique metus omnes, et inexorabile fatum
Subiecit pedibus, strepitumque Acherontis avari :
[Happy the man who doth the causes know
Of all that is : serene he stands, above
All fears ; above the inexorable fate,
And that insatiate gulf that roars below.]*

30

It were too long to go over the particular remedies which learning doth minister to all the diseases of the mind ; sometimes purging the ill humours, sometimes opening the obstructions, sometimes helping digestion, sometimes increasing appetite, sometimes healing the wounds and exulcerations

thereof, and the like ; and, therefore, I will conclude with that which hath *rationem totius* ; [*the essence of the whole* ;] which is, that it disposeth the constitution of the mind not to be fixed or settled in the defects thereof, but still to be capable and susceptible of growth and reformation. For the unlearned man knows not what it is to descend into himself, or to call himself to account ; nor the pleasure of *suavissima vita, indies sentire se fieri meliorem* : [*that most pleasant life, feeling one's self grow better every day.*] The good parts he hath he will learn to show to the full, and use them 10 dexterously, but not much to increase them : the faults he hath he will learn how to hide and colour them, but not much to amend them : like an ill mower, that mows on still, and never whets his scythe. Whereas with the learned man it fares otherwise, that he doth ever intermix the correction and amendment of his mind with the use and employment thereof. Nay further, in general and in sum, certain it is that *Veritas* [*Truth*] and *Bonitas* [*Goodness*] differ but as the seal and the print : for Truth prints Goodness ; and they be the clouds of error which descend in the storms of passions 20 and perturbations.

From moral virtue let us pass on to matter of power and commandment, and consider whether in right reason there be any comparable with that wherewith knowledge investeth and crowneth man's nature. We see the dignity of the commandment is according to the dignity of the commanded : to have commandment over beasts, as herdmen have, is a thing contemptible ; to have commandment over children, as schoolmasters have, is a matter of small honour ; to have commandment over galley-slaves is a disparagement rather than an 30 honour. Neither is the commandment of tyrants much better, over people which have put off the generosity of their minds : and therefore it was ever holden that honours in free monarchies and commonwealths had a sweetness more than in tyrannies ; because the commandment extendeth more over the wills of men, and not only over their deeds and

services. And therefore, when Virgil putteth himself forth to attribute to Augustus Caesar the best of human honours, he doth it in these words :

Victorque volentes

Per populos dat jura, viamque affectat Olympo.

[*Moving in conquest onward, at his will*

To willing peoples he gives laws, and shapes

Through worthiest deeds on earth his course to Heaven.]

But yet the commandment of knowledge is yet higher than
 10 the commandment over the will ; for it is a commandment
 over the reason, belief, and understanding of man, which is
 the highest part of the mind, and giveth law to the will
 itself : for there is no power on earth which setteth up a
 throne or chair of state in the spirits and souls of men, and
 in their cogitations, imaginations, opinions, and beliefs, but
 knowledge and learning. And therefore we see the detestable
 and extreme pleasure that arch-heretics, and false prophets,
 and impostors are transported with, when they once find in
 themselves that they have a superiority in the faith and
 20 conscience of men ; so great, that, if they have once tasted of
 it, it is eeldom seen that any torture or persecution can make
 them relinquish or abandon it. But as this is that which the
 author of the Revelation calleth the depth or profoundness of
 Satan : so by argument of contraries, the just and lawful
 sovereignty over men's understanding, by force of truth
 rightly interpreted, is that which approacheth nearest to the
 similitude of the divine rule.

As for fortune and advancement, the beneficence of
 learning is not so confined to give fortune only to states
 30 and commonwealths, as it doth not likewise give fortune to
 particular persons. For it was well noted long ago, that
 Homer hath given more men their livings, than either Sylla,
 or Caesar, or Augustus ever did, notwithstanding their great
 largesses and donatives, and distributions of lands to so many
 legions : and no doubt it is hard to say, whether arms or
 learning have advanced greater numbers. And in case of

sovereignty we see, that if arms or descent have carried away the kingdom, yet learning hath carried the priesthood, which ever hath been in some competition with empire.

Again, for the pleasure and delight of knowledge and learning, it far surpasseth all other in nature : for, shall the pleasures of the affections so exceed the pleasure of the senses, as much as the obtaining of desire or victory exceedeth a song or a dinner ? and must not, of consequence, the pleasures of the intellect or understanding exceed the pleasures of the affections ? We see in all other pleasures 10 there is satiety, and after they be used, their verdure departeth ; which sheweth well they be but deceits of pleasure, and not pleasures ; and that it was the novelty which pleased, and not the quality : and therefore we see that voluptuous men turn friars, and ambitious princes turn melancholy. But of knowledge there is no satiety, but satisfaction and appetite are perpetually interchangeable ; and therefore appeareth to be good in itself simply, without fallacy or accident. Neither is that pleasure of small efficacy and contentment to the mind of man, which the poet 20 Lucretius describeth elegantly,

SVAVE MARI MAGNO, TURBANTIBUS ÆQUORA VENTIS, etc.

It is a view of delight, saith he, to stand or walk upon the shore side, and to see a ship tossed with tempest upon the sea ; or to be in a fortified tower, and to see two battles join upon a plain ; but it is a pleasure incomparable, for the mind of man to be settled, landed, and fortified in the certainty of truth ; and from thence to descry and behold the errors, perturbations, labours, and wanderings up and down of other men.

Lastly, leaving the vulgar arguments, that by learning 30 man excelleth man in that wherein man excelleth beaste ; that by learning man ascendeth to the heavens and their motions, where in body he cannot come, and the like ; let us conclude with the dignity and excellency of knowledge and learning in that whereunto man's nature doth most aspire,

which is immortality or continuance : for to this tendeth generation, and raising of houses and families ; to this tend buildings, foundations, and monuments ; to this tendeth the desire of memory, fame, and celebration, and in effect the strength of all other human desires. We see then how far the monuments of wit and learning are more durable than the monuments of power or of the hands. For have not the verses of Homer continued twenty-five hundred years, or more, without the loss of a syllable or letter ; during which
10 time infinite palaces, temples, castles, cities, have been decayed and demolished ? It is not possible to have the true pictures or statues of Cyrus, Alexander, Cæsar ; no, nor of the kings or great personages of much later years ; for the originals cannot last, and the copies cannot but lose of the life and truth. But the images of men's wits and knowledges remain in books, exempted from the wrong of time, and capable of perpetual renovation. Neither are they fitly to be called images, because they generate still, and cast their seeds in the minds of others, provoking and causing
20 infinite actions and opinions in succeeding ages : so that if the invention of the ship was thought so noble, which carrieth riches and commodities from place to place, and consociateth the most remote regions in participation of their fruits, how much more are letters to be magnified, which, as ships, pass through the vast seas of time, and make ages so distant to participate of the wisdom, illuminations, and inventions, the one of the other ? Nay further, we see, some of the philosophers which were least divine, and most immersed in the senses, and denied generally the immortality of the soul, yet
30 came to this point, that whatsoever motions the spirit of man could act and perform without the organs of the body, they thought, might remain after death, which were only those of the understanding, and not of the affections ; so immortal and incorruptible a thing did knowledge seem unto them to be. But we, that know by divine revelation, that not only the understanding but the affections purified, not only the spirit

but the body changed, shall be advanced to immortality, do disclaim in these rudiments of the senses. But it must be remembered both in this last point, and so it may likewise be needful in other places, that in probation of the dignity of knowledge or learning, I did in the beginning separate divine testimony from human, which method I have pursued, and so handled them both apart.

Nevertheless I do not pretend, and I know it will be impossible for me, by any pleading of mine, to reverse the judgment, either of *Æsop's* cock, that preferred the barley-10 corn before the gem; or of *Midas*, that being chosen judge between *Apollo* president of the Muses, and *Pan* god of the flocks, judged for plenty; or of *Paris*, that judged for beauty and love against wisdom and power; or of *Agrippina*, *Occidat matrem, modo imperet*, [*Let him kill his mother, provided that he become Emperor*,] that preferred empire with any condition never so detestable; or of *Ulysses*, *Qui vetulam prætulit immortalitati*, [*who preferred an old woman to immortality*,] being a figure of those which prefer custom and habit before all excellency; or of a number of the like 20 popular judgments. For these things continue as they have been: but so will that also continue whereupon learning hath ever relied, and which faileth not: *Justificata est sapientia a filiiis suis* [*Wisdom is justified by her children*.]

NOTES.

[N.B.—The letters E., J. S., and W. show that the notes to which they are appended are borrowed from Mr. Ellis, Mr. Spedding, and Mr. Wright, to all of whom I am much indebted. The references to Bk. 2 are to my own edition.]

Pages 1-4. Dedication to the king. *By the law of Moses there were certain daily sacrifices which every Jew was obliged to offer to God: but, besides these, pious individuals might make voluntary offerings according to their ability. In like manner subjects may make voluntary offerings to their sovereign, over and above the services which they owe to him as subjects. Considering the largeness of the king's intellect, his eloquence, and above all, his great learning, Bacon thinks that he cannot offer him a more appropriate present than a book which shall set forth the dignity of learning, and shall contain an account of what has been already done, and what still remains to be done, for the advancement of learning. Such a book will serve as a perpetual testimony to the merits of the king, and the perusal of it will, Bacon hopes, incite the king to take such measures as, in his wisdom, he shall think most fit to promote learning.*

James's flatterers used to call him the British Solomon. He was a bad king and wanted the qualities which make a man successful in action; but he was a man of great natural sagacity, and was eminent for his learning even amongst the learned men of his time. Macaulay talks of him as "a witty and well-read scholar," and Lingard praises his "quickness of apprehension and soundness of judgment," though he censures him for his self-sufficiency and affectation. Besides the *Basilicon Doron* James wrote a book on the *True Law of Free Monarchy*, and also a treatise on *Demonology*, in which he claimed to have demonstrated the existence of witches. Bacon refers to these three works in the *Advancement*. To the end of his life James took great interest in theology, which he considered the first of sciences. It is difficult to read Bacon's

exaggerated panegyric without a smile. Bacon, however, certainly understood what would please the king better than we can do, and we must attribute his compliments to his earnest desire to attract the attention and obtain the patronage of James. Bacon's great object was to abolish the old learning altogether, and to institute the study of experimental philosophy in its place. This was a project which the king, trained as he was in the old learning, could hardly be expected to favour. But a survey of the existing stock of knowledge, which is given in the *Advancement*, was a necessary preliminary to reform, and might be expected to interest the king very much. Ultimately, no doubt, Bacon hoped to enlist James's sympathy in favour of the larger schemes which he was meditating. See Spedding's *Francis Bacon and his Times*, 1—426. Bacon had also another motive for flattering and conciliating the king. He hoped to obtain from him the promotion for which he had striven with such small success under Elizabeth. Perhaps the best known picture of King James is that drawn by Sir Walter Scott in his *Fortunes of Nigel*.

Page 1, l. 2. proceeding upon ordinary observance, "These things ye shall do unto the Lord in your set feasts, beside your vows and your freewill offerings."—*Numbers* xxix. 30. *Proceeding upon* means *resulting from*.

l. 5. In the former, etc., I hope that, as long as I live, I shall never fail to do my duty in any position in which it may please you to place me.

l. 9. respective, appropriate. oblation, offering.

l. 10. propriety, peculiarity. It is the same as the logical term property, and is derived from the Latin adjective *proprius*, which signifies what belongs to a thing in its own right. Bacon wishes to adapt his gift to the personal tastes of King James, not to his official position.

l. 12. representing, lit. *bringing before* the mind. Cf. "calling to view," Bk. 2, p. 73.

l. 15. is inscrutable, *Prov.* xxv. 3. Cf. Bacon's 19th Essay. "It is a miserable state of mind to have few things to desire and many things to fear. And yet that commonly is the case of kings: who, being at the highest, want matter of desire, which makes their minds more languishing; and have many representations of perils and shadows, which makes their minds the less clear. And this is one reason also of that effect, which the Scripture speaketh of: *that the king's heart is inscrutable*. For multitude of jealousies and lack of some predominant desire, that should marshal and put in order all the rest, maketh any man's heart hard to find or sound," etc.

l. 16. your virtue and fortunes, see note on p. 2, l. 36. Notice

that Bacon uses the word virtue in the general sense of excellence, and is, therefore, obliged to qualify it by an adjective showing what kind of excellence he means. Virtue with us means moral excellence. It is therefore unnecessary for us to talk of 'moral virtue' as Bacon does. See, *e.g.*, p. 61, l. 12.

Page 2, l. 5. I have often thought, The king learns so readily that, instead of learning something new, he seems to be merely recalling something which he had forgotten. The Platonic doctrine referred to is that our souls have possessed knowledge in a previous state of existence: and that therefore the knowledge which we acquire in this life is not put into us from without. It is latent in the soul, and is recovered by an act of recollection. In the dialogue called the *Meno* Socrates says "that he had heard from priests and priestesses and inspired men that the soul of man is immortal, and at one time has an end, which is termed dying, and at another time is born again, but is never destroyed. . . . The soul, then, as being immortal, and having been born again many times, and having seen all things that there are, whether in this world or the world below, has knowledge of them all; and it is no wonder that she should be able to call to remembrance all that she ever knew about virtue, and about everything; for as all nature is akin, and the soul has learned all things, there is no difficulty in her eliciting, or as men say learning, all out of a single recollection, if a man is strenuous and does not faint; for all enquiry and all learning is but recollection." Having thus stated the doctrine, he further proves the existence of this latent knowledge by the interrogation of one of Meno's slaves, who, in the skilful hands of Socrates, is made to acknowledge some elementary relations of geometrical figures. But whence had the uneducated man this knowledge? He had never learnt geometry in this world; nor was it born with him; he must therefore have had it when he was not a man. And as he always was or was not a man, he must have always had it. Jowett's *Plato*, vol. 1, p. 281 and p. 281. The same doctrine is repeated and illustrated by Plato in the *Phædo*. Cf. the passage in Wordsworth's *Ode on Intimations of Immortality*, beginning—

"Our birth is but a sleep and a forgetting:
The soul that rises with us, our life's star,
Hath had elsewhere its setting,
And cometh from afar."

The form in which the doctrine is expressed is fanciful, but it contains an important psychological truth. The mind of each individual is not a mere passive receptivity, but a complex of tendencies and aptitudes. The mind takes an active part in the process by which knowledge is acquired.

1. 11. *tabernacle*, a diminutive of the Latin *taberna* (Eng. *tavern*), lit. 'a shed made of planks.' It signifies a temporary

dwelling. sequestered, obscured. Bacon also uses 'to sequester' in the sense of to put on one side. It was properly a law term signifying to withdraw or remove from a person and put temporarily in the hands of a trustee something of which the ownership was disputed.

l. 12. such a light, etc. The most trifling observation or the slightest hint is sufficient to make a truth flash upon your mind.

l. 15. the Scripture saith, etc. "And God gave Solomon wisdom and understanding exceeding much, and largeness of heart, even as the sand that is on the seashore."—1 Kings iv. 29.

l. 17. which ... it. This irregular construction, where it is unnecessarily inserted after the relative, occurs very frequently.

l. 20. To compass and comprehend, to embrace and take in. To compass means literally to complete the circuit of a thing. To comprehend means to grasp.

l. 23. for, as regards.

l. 24. Tacitus. The reference is to the *Annals*, bk. 13, ch. 3. The Roman historian Tacitus lived from about 60—120 A.D.

l. 31. though never so excellent, i.e., no matter how excellent it may be. The use of *never so* is to be explained by an ellipsis. Thus—"Though the speech were excellent—though *never* a speech were so excellent." Abbott, *Sh. Gr.* § 406.

l. 32. holding of the subject, i.e., wanting in originality. It is opposed to *prince-like* in the following sentence, and means literally 'partaking of the nature of a subject,' i.e., not independent.

l. 33. flowing, etc., though copious, yet well arranged.

l. 35. felicity, we still use the phrase "a happy expression," to denote one which is peculiarly appropriate to express the thing intended.

l. 36. And as in, etc. Just as in your political and domestic life your virtues have been as eminent as your good fortune has been conspicuous, so, in intellectual matters, the knowledge which you have acquired is not less remarkable than the faculties with which you were by nature endowed. estate, position.

Page 3, l. 2. a virtuous disposition, etc. These sentences explain the 'emulation and contention.' In each sentence an instance of virtue is set over against an instance of good luck.

l. 3. regiment, education. The word literally means control, from Lat. *regere*, to rule. On p. 53, l. 19, it is used as equivalent to *government*. when time was, once upon a time, i.e., in the days; when, as yet, you were only heir to the throne. Notice that *was* is used absolutely. your greater fortune, i.e., the possession of the English crown.

1. 8. neighbour, used as an adjective for neighbouring.

1. 13. amplification, exaggeration.

1. 15. temporal, opposed to ecclesiastical.

1. 17. revolve, reflect upon. By *Rome* Bacon means the Roman Empire before it was divided. By *Græcia* he means the Eastern half of the original empire, of which Constantinople was the capital. The capital of the *West* was Rome. *Peruse* means to survey. It means properly 'to use up,' and so to go through thoroughly.

1. 18. *Cæsar* the Dictator, "Julius Cæsar was invested with the Dictatorship at first temporarily after the return from Spain in 49, then after the battle of Pharsalus from the autumn of 48 for an indefinite time, lastly after the battle of Thapsus from the 1st January, 45, as an annual office, to which he was designated at first for ten years, ultimately in 44 for life."—*Mommsen*, vol. iv., p. 493. For the meaning of *Dictator* see on p. 28, l. 9. Bacon gives examples of the learning of Cæsar below, pp. 57-60, and on p. 52 he says that Marcus Antoninus was named The Philosopher.

1. 24. wits, the word wit is generally used simply as the equivalent of *mind*. We must not expect original research or profound knowledge from a king. If he can appropriate and repeat what others have discovered, so as to create the impression of being well informed, he has done all that is to be expected.

1. 26. countenance and prefer, favour and promote.

1. 29. in a king born. The learning of a sovereign who has been raised to the throne from a private station excites no astonishment. Before his elevation he had the same leisure, and the same incentives to work, that ordinary men have.

1. 30. conjunction, a term borrowed from astrology.

1. 31. profane, secular. We now use the word to signify impious. The word literally expresses what is in front of or outside of the temple. Lat. *fanum*.

1. 32. so as, so that. The phrase occurs repeatedly in the text, and always in this sense.

1. 34. *Hermes*, said to have been a great philosopher, king, and priest, of Egypt. But this real *Hermes*, or the writer of the works ascribed to him, was a neophyte Platonist of the second or third century.—E. The name, according to Dean Church, was given to a vast series of writings on theology, philosophy, and nature, which appear to have grown up in Egypt from the second century onwards, and which, embodying Jewish and Christian, as well as Eastern, Greek, and Egyptian ideas, were probably intended as a body of literature antagonistic to Christianity, giving

to philosophy the attractions of a religious and inspired character. For invested of, we should now say invested with.

l. 36. propriety, see on p. 1, l. 10. Bacon means that it must not be left unrecorded that James occupied an exceptional position among kings as an original thinker and teacher. The Latin translation has—"it is right that it should be engraved on some such solid work as will express the power of a great king, and recall the image of a king so eminently learned."

Page 4, l. 5. character or signature, i.e., a stamp or impression. The word 'character' is here used in its literal sense to denote 'an impression.' The Queen's head on a coin is properly called 'a character.' Shakespeare uses 'to character,' for 'to impress'—

'And these few precepts in thy memory

See thou character.'—*Hamlet*, i. 3. 57.

l. 6. difference means a distinguishing mark. It is a term used in heraldry to signify "a figure added to a coat of arms to distinguish the persons or families who bear the same arms, and to indicate their nearness to the original bearer."—*Webster*. The words used by Bacon show that he has in his mind the habit of blazoning arms upon monuments.

l. 18. undervalues, i.e., shortcomings.

l. 19. framed particulars, a scheme complete in all details.

l. 21. for this purpose, the Latin translation has 'to extend the bounds of arts and sciences.'

Pages 4-9. Before proceeding to set forth the dignity of learning, Bacon wishes to clear the way by showing that the objections which have been raised against learning are based upon ignorance. He deals first with the objections raised by theologians.

Theologians quote Scripture to prove that the desire of knowledge was the cause of original sin, that it puffs up the mind, as the serpent's poison causes the body to swell, and that it is productive only of anxiety. They assert, moreover, that knowledge draws men away from God. In reply Bacon says that it was not the knowledge of the properties of natural objects which was the cause of the fall, but the desire of man to learn the distinction between good and evil with a view to emancipating himself from the divine authority, and becoming a law to himself. As for knowledge puffing up the mind, there is, in reality, no subject which is too great for the mind, except God himself. Bacon quotes Scripture to prove that the human mind is so constituted as to be capable of attaining to the knowledge of all phenomena, and of the laws of their operation. If certain accidental hindrances were removed, the mind might even attain to the know-

ledge of the 'summary law of nature.' It is never by knowledge that the mind is corrupted, but by a wrong use of knowledge. Knowledge is to be used to improve the condition of men, not to flatter our own vanity, nor to raise extravagant hopes and fears, nor to lead us to attempt to understand God, who is incomprehensible. If these cautions be observed, knowledge is an unmixt good. In reply to the assertion that knowledge draws men away from God, Bacon says that the truths of science are indisputable, and that therefore the cause of true religion cannot be served by denying them: (will you lie for God to gratify him?) and, as a matter of fact, the wider and more profound a man's knowledge is, the deeper will be his conviction of the truths of religion. Cf. Bk. 2, p. 44.

In this passage Bacon gives his conception of the scope and object of science. The scope of science is 'nature and universality': i.e., a complete understanding of all natural phenomena. The object of science, as he says elsewhere, is the glory of God, and the relief of man's estate.

1. 23. the former of these, i.e., the first half of the present treatise: see above, l. 11.

1. 24. to have, etc., so as to secure a favourable hearing for.

1. 28. ignorance severally disguised, i.e., concealing itself under different forms, such for example, as zeal for religion or for the state.

1. 30. divines, theologians; for *arrogancy* we write *arrogance*.

1. 33. the former sort, i.e., theologians. is of, i.e., is one of.

1. 34. accepted of, the *of* is redundant.

Page 5, l. 2. knowledge hath, the Latin translation adds, 'even at the present day.'

1. 5. a censure, an opinion. *Ecclesiast.* xii. 12 and i. 18.

1. 7. contristation, sadness.

1. 9. a caveat, a warning. *Coloss.* ii. 8.

1. 11. how learned times, etc. Amongst the causes of Atheism, Bacon, in his 16th Essay, mentions "Learned times, specially with peace and prosperity: for troubles and adversities do more bow men's minds to religion."

1. 12. second causes, what we call 'physical causes.' The attraction of the earth is the second or physical cause of an unsupported body falling to the ground. Second causes are opposed to the first or efficient cause, viz., God. Cf. p. 8.

1. 15. To discover, to show. The literal meaning of the word is to uncover.

1. 16. it may well appear, it is obvious.

l. 19. man did give names, cf. p. 42, l. 2. The argument is that Adam knew the nature and properties of all creatures, because, in the garden of Eden, he gave them names, and names express the properties of the things named. Ellis quotes the same argument from the writings of Thomas Aquinas.

l. 21. proprieties, properties.

l. 22. of good and evil. The tree of knowledge of good and evil stood in the midst of the garden of Eden, and man was forbidden to taste the fruit of it on pain of death. See p. 42. It was the accepted doctrine of the Church that Adam's sin arose from pride. See Dante's *Paradiso*, vii. 25. Dante probably took it from Thomas Aquinas.

l. 27. extend, distend.

l. 29. principal senses of inquisition, i.e., the senses which are of most use to us in acquiring knowledge. Bacon means that the senses supply the mind with the objects of thought: they are 'reporters to the mind.' Cf. "Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways in which those objects do effect them."—Locke's *Essay*, bk. 2, ch. 1. The objects of sight and hearing, colours and sounds, are those which we first apprehend, and which are most frequently presented to us. For the quotation, see *Ecclesiast.* i. 8. Bacon frequently uses the word inquisition where we should use inquiry or investigation.

l. 32. the continent, that which contains.

l. 35. ephemerides, a calendar. It is a Greek word exactly equivalent to our 'diary,' from Latin *dies*, a day. The passage to which Bacon alludes begins thus, "To everything there is a season, and a time to every purpose under the heaven," *Eccl.* 3:1.

Page 6, l. 2. decent, becoming, suitable. in the true return of their seasons, i.e., each at its proper time. The work which God worketh from the beginning to the end. Bacon often uses this phrase to denote the law on which the primary qualities of matter ultimately depend. In all our inquiries we must start with matter existing, and possessed of its primitive qualities. But on what do these primary qualities depend? What is the law of 'the force implanted by God in these first particles, from the multiplication whereof all the variety of things proceeds and is made up?' Here, as elsewhere, he leaves it doubtful whether this question can ever be answered. Cf. Bk. 2, p. 44, and see *On Principles and Origins*. Ellis and Spedding's edn., vol. 5, p. 461. He calls this law 'the work which God worketh from the beginning to the end,' because the whole series of natural phenomena results from it.

l. 6. capable of, able to receive.

1. 9. vicissitude of times, change of seasons.

1. 10. raised, desirous of finding.

ordinances and decrees, i.e., the laws of nature. A uniformity in nature is called a law because what happens in nature is regarded as happening by the command of God. Thus Wordsworth, in his *Ode to Duty*, represents the heavens as being preserved by the performance of their duty. The two senses of the term are brought together in a single sentence below, p. 58, l. 10.

1. 17. ill conjunction, imperfect co-operation.

1. 18. tradition, the word is used, as Bacon generally uses it, in its literal senso of 'delivery,' or 'communication.'

1. 20. nothing parcel of, i.e., no part of. Parcel is the low Latin word *particella*, which means a small part.

1. 21. he doth rule over, he decides.

1. 24. receipt, capacity, or power of receiving.

1. 27. out-compass itself, exceed its proper limits.

1. 30. malignity, injurious property.

1. 31. ventosity, windiness: Cf. below, "knowledge bloweth up."

1. 32. corrective spice, an antidote.

1. 33. sovereign, the word means properly supreme, and so possessed of great power, efficacious. It is often used as an epithet of the word medicine. charity, defined below as the habit of referring everything to the good of men and mankind. 1 *Corinth.* xiii. 1.

Page 7, l. 4. referred to; directed towards, as its object.

1. 5. sounding, literally making a noise and nothing else, i.e., unsubstantial.

1. 8. meriting, meritorious.

1. 7. censure, p. 5, l. 5.

1. 13. confined and circumscribed, limited and bounded. To confine means to keep within limits; to circumscribe means to draw a line round anything.

1. 14. coarctation, a Latin word for narrowing. but that it may comprehend, i.e., as would prevent it from comprehending, i.e., including.

1. 17. as, that.

1. 19. distaste, the exact equivalent of disgust.

1. 28. roundeth about, wanders about *Ecclesiast.* ii. 13, 14.

1. 27. the same mortality involveth them both, Bacon means to say that we must not become such slaves to any pleasure that the renunciation of it at the time of death will be painful. Any pursuit, however pleasurable, will become painful, if we are con-

stantly distressing ourselves with the thought that, at some time or other, we shall have to abandon it. The wise man and the fool must alike submit to the conditions of human existence. But the wise man will not undertake more than he can hope to accomplish within the limits of a life-time. Instead of repining at the shortness of life, he will show his wisdom in making a good use of it.

1. 29. *merely, entirely.* The Latin word *merus* means pure, or unmixed: and in Elizabethan English mere and merely are used in their literal sense.

1. 30. *wonder.* Aristotle says that it was wonder which first led man to seek for knowledge: and Plato says, "Wonder is the feeling of a philosopher, and philosophy begins in wonder."

1. 33. *their particular, their own condition.*

1. 35. *carefulness, anxiety.* We may illustrate Bacon's remarks by reference to the extravagant hopes entertained by the alchemists.

1. 36. *a dry light.* Plutarch mentions the opinion of Heraclitus that 'the wisest mind is a dry light': and Bacon elsewhere says, "Heraclitus the Obscure said: *The dry light was the best soul*: meaning, when the faculties intellectual are in vigour, not wet, nor, as it were, blooded by the affections." In the 27th Essay too Bacon says, "Heraclitus saith well in one of his Enigmas; *Dry light is ever the best.* And certain it is that the light that a man receiveth by counsel from another is *drier* and purer than that which cometh from his own understanding and judgment, which is ever infused and drenched in his affections and customs." The word *dry* is used in the sense of 'clear' or 'pure.' The meaning of the passage will be best understood by comparing it with the 49th Aphorism of the first book of the *Novum Organum*, in which Bacon says, "The mind of man is not like a dry light, but it receives from the will and affections a taint which produces capricious or arbitrary sciences: for what a man wishes to be true, that he is inclined to believe to be true." In working out an arithmetical problem, we are not likely to be swayed by passion, but in the study of economical, or political, or theological doctrine, we are very apt to be biassed, and to start with preconceived opinions which make us overlook or misinterpret evidence, and so vitiate our conclusions.

Page 8, l. 5. *stood upon, dwelt upon.*

1. 13. *broken, incomplete.* Cf. *abrupt*, Bk. 2, p. 190.

1. 14. *one of Plato's school.* Philo Judæus, who was born at Alexandria about B.C. 20. He aimed at harmonizing the principles of the Greek philosophy of religion with the text of the Mosaic writings. The more we study nature, the more we see that the human intellect cannot attain to the knowledge of God.

If therefore men try to arrive at such knowledge, their conclusions are sure to be heretical, i.e. at variance with the teaching of Revelation, which is the only source of knowledge as to the divine character and will. Bacon frequently insists in his writings on the necessity of keeping theology and science separate: see Bk. 2, pp. 85 and 183. In the 65th Aphorism of the first book of the *Novum Organum*, he says, "An ill-advised admixture of things human and divine produces a fantastical philosophy, and an heretical religion." In his 17th Essay he mentions among the causes of superstition "the taking an aim at divine matters by human, which cannot but breed mixture of imaginations." We may here briefly consider what Bacon's attitude towards religion was. He says in the text that the more we study nature, and see how law and harmony regulate its apparent diversity, the more convinced we become of the existence of a God, who put in motion originally, and who still controls, the vast machinery of the system. In his 16th Essay he says, "I had rather believe all the fables in the Legend, [a book containing the lives of the Saints] and the Talmud, and the Alcoran than that this Universal Frame is without a mind.... It is true that a little philosophy inclineth man's mind to atheism: but depth in philosophy bringeth men's minds about to religion: for while the mind of man looketh upon second causes scattered, it may sometimes rest in them and go no further. *But when it beholdeth the chain of them confederate and linked together, it must needs fly to providence and deity.*" See below, p. 46. Bacon, then, certainly believed in the existence of God, and in the government of the world by divine providence. These he regarded as truths established by natural religion. Natural religion, then, according to Bacon, falls within, and is demonstrated by philosophy. Theology, Bacon says, does not come within the sphere of philosophy. It rests simply on faith: its dogmas are not to be tested or criticised by reason, nor to be rejected if they are repugnant to reason (see Bk. 2, p. 183). If Bacon had been asked why he believed in the Christian theology, he would have replied because it is contained in the Bible. He did not ask whether the Bible was worthy of credit, nor did he care to co-ordinate his theological with his other beliefs. He was too much interested in science to devote his time to theology. He lived in an age of violent theological discussion, but took neither part nor interest in it. Theological discussions are, he says, for the most part frivolous and unfruitful. Unity as to the essentials of religion is all that is necessary. (See Essay 3.) He would have allowed perfect freedom of judgment, limited only by the positive declarations of Scripture. He accepted the doctrines of Christianity, but his was rather a belief of the lips than of the heart: and he was always more interested in the moral than in the doctrinal side of Christianity. (See Macaulay's Essay on Bacon.) Bacon's

position was not altogether a logical one, but it is easily explained. Firstly, as noticed above, he was so interested in science that he was content simply to accept theology as resting on evidence of its own, without caring to examine the evidence. Secondly, a historical criticism of the sacred books of the Christians was not taken up till after his time. Lastly, in an age when scientific inquirers were being punished by the church, it was of the first importance to show the absurdity of trying to control scientific inquiry. The task of reconciling its results to ecclesiastical dogmae might be left to theologians.

l. 22. by the waxen wings of the senses, referring to the legend of Icarus, who attempted to fly from Crete on wings made of wax. He flew too near the sun: his wings melted, and he fell into the sea, and was drowned. The senses are as incapable of penetrating the divine mysteries as the wings of Icarus were of carrying him through the air.

l. 23. the conceit, the idea. The word is used in this sense throughout the book. It means lit. anything which is *conceived* in the mind.

l. 23. should incline, the conditional mood shows that Bacon is quoting an opinion of others, and not expressing his own.

l. 27. Job, a person whose history is told in one of the books of the Jewish Scripture. He was distinguished for his patience under trials and misfortune.

l. 29. worketh nothing, in the Latin tr. Bacon adds *ordinarily*. He excepts the miracles recorded in Scripture.

l. 32. unclean, the word is used in the English translation of the Jewish law to signify what is ceremonially impure.

Page 9, l. 1. in the entrances of philosophy, when a man begins to study science.

l. 4. it, i.e., the habit of concentrating the attention on second causes. The word *induce* is used in its literal sense of *bring on*. This use of the word is common in Bacon.

l. 7. the highest link, etc., an allegorical interpretation of a passage in Homer, in which Jupiter says 'that if all the gods and goddesses were to pull at a golden chain hung from earth to heaven, they could not drag him down, but that he could drag them up, together with earth and sea, and suspend all in mid air.' Cf. Bk. 2, p. 35. Bacon means that the series of natural phenomena is directed by God. However far back we may go in the series of physical causes, we are driven ultimately to the conception of a first cause. Cf.

"But who can turn the stream of destiny,
Or break the chain of strong necessity,
Which fast is tied to Jove's eternal seat?"

—Spenser, *Faery Queen*, l. v. 25;

and, "There is a nearer way to Heaven than Homer's chain; an easy logic may conjoin a heaven and earth in one argument, and, with less than a sorites, resolve all things to God. For though we christen effects by their most sensible and nearest causes, yet is God the true and infallible cause of all," etc. *Religio Medici*, § 18.

1. 9. let no man, etc. Let no one, under the foolish impression that he is restraining his inquiries within proper limits, or impelled by a mistaken moderation, etc.

1. 12. the book of God's word is the Bible: the book of God's works is nature.

1. 13. divinity or philosophy, theology or science.

1. 14. endeavour, attempt. We no longer use the word thus.

1. 15. charity, see on p. 6, l. 33.

1. 16. swelling, pride. We talk of men being 'puffed up with pride.'

1. 17. learnings, studies, or branches of learning.

Pages 9-16. Bacon now proceeds to refute the objections which have been raised against learning by statesmen.

Statesmen quote authorities to show that learning enervates: that it induces habits of mind and body which unfit men for business: and that the habit of discussion is fatal to the habit of obedience. Bacon in reply says that these three objections are based on exceptional instances which can easily be explained. As a matter of fact, learning does not enervate: history proves that the same individual may be both a good scholar and a brave and skilful general. History too confirms the natural expectation that the ages, which have been most distinguished for learning, would also be most distinguished for skill in the arts of war and government. As for the second objection, it is absurd to say that learning unfits men for the work of governing. An ignorant statesman is a mere empiric, no more to be trusted than a quack doctor. The most successful governments have been those which have been directed by learned men. Learned men may have their weaknesses, but from their knowledge of history they must have learned the essential principles of real statesmanship. Learned men are likely to be the most indefatigable in business, and to be the only ones who will take it up for its own sake. The intervals of business will afford leisure for study. A learned man may occasionally be slothful: but that is not because he is learned. All ignorant men are not active. Lastly, learned men make the best citizens, because they see the necessity of obedience, and therefore yield it willingly.

It is in barbarous communities that the task of government is most difficult.

Cf. the end of Article III. in Book v. chap. I. of Adam Smith's *Wealth of Nations*. With the whole of this passage, cf. pp. 48-61.

The substance of the passage is that, other things being equal, all arts, and therefore the arts of government and war among the rest, will be practised with greater success by those who have had a proper training, than by mere empirics. A quack doctor, who by a given remedy has cured a fever, *may* cure another by the same remedy, if the two cases happen to be exactly alike; but a man trained in the principles of medicine, who knows how and why his medicines act, will be able to adjust his remedies to different constitutions and to different forms of the same disease. Similarly a mere empiric *may* hit upon a tax which will be productive, and which will be paid willingly: a scientific statesman will be able to make a rational and trustworthy forecast. Cf. Essay xii. "So are there mountebanks for the politique body; men that undertake great cures and perhaps have been lucky in two or three experiments, but want the grounds of science, and therefore cannot hold out." By learning Bacon intends chiefly a knowledge of history, or rather of what we should call the philosophy of history. In the Introduction to Book 2, he repeats that a liberal education, i.e., an education in histories, modern languages, books of policy and civil discourse, and other the like enablements unto service of estate, is a necessary qualification for statesmanship. The whole tendency of Burke's political teaching is in harmony with these remarks of Bacon. The spirit of Bacon's teaching reappears too in Carlyle's Hero-worship, which is, in reality, a demand that nations should be governed by the wisest and best of their citizens.

l. 19: as for the disgraces, etc. The meaning of the sentence is that politicians try to discredit learning on the following grounds. The use of *be* for *are* was common, specially in reference to a number of persons or things considered as a kind or class.

l. 24. ourious, careful. With this passage cf. p. 13. 8 *seqq.*, where the objections here raised are answered. If their knowledge of history suggests to them so many courses of action that they are puzzled which to choose, yet it teaches them when further hesitation is dangerous, and at the same time enables them to act on a reasonable principle, when they do act.

l. 25. peremptory, obstinate. It is said that learned men adhere too strictly to rigid rules and principles, from which, in practice, deviations are often required. For instance, it is often said that 'modified free trade' is expedient for some countries: 'a learned statesman' might enforce pure free trade everywhere.

Bacon says in reply (p. 13) that the learned man alone knows when a theory is proved, and when it is not: and within what limits, and under what circumstances, exceptions to a rule are reasonable.

l. 26. too immoderate, etc. It is said that learned men will aim presumptuously at equalling the greatness of the most celebrated men of whom they have read in history: or that they will simply attempt to imitate the past, forgetting that what is possible in one age is impossible in another. In reply to this Bacon says (p. 13) that only ignorant men will regard every historical personage as a model to be imitated, and every historical event as a precedent to be followed.

l. 27. incompatible, not suited to the times in which they live.

l. 29. travails, the two forms travail and travel were used indiscriminately to express labour, as in this passage, and journeying. Dean Church quotes a passage from Hooker in which the connection between the two meanings is expressed—"Rest is the end of all motion, and the last perfection of all things that labour. Labours in us are journeys, and even in them which feel no weariness by any work, they are but ways whereby to come unto that which bringeth not happiness till it do bring rest."

l. 35. in embassy, on an embassy. In the year 155 B.C. the Athenians sent an embassy to Rome to ask for the remission of a fine which had been imposed on their city. Carneades, a philosopher of the sceptical school, was one of the envoys. The story is told by Plutarch in his life of Cato, ch. xxii.

Page 10, l. 1. that, redundant. Abbott (*Sh. Gr.* § 287) points out that *that* was affixed to words originally interrogative to give them a relative meaning, and was then by analogy attached to other words such as *if* and *though*.

l. 6. at unawares, we should omit 'at.' *Unawares* is a genitive form. Needs, in the sense of necessarily, is another example of an adverb formed from the possessive inflection of nouns.

l. 11. The second *between* is superfluous. The meaning is, 'between policy and government on the one hand, and arts and sciences on the other.'

l. 12. challenging, claiming. *Æn.* vi. 852.

l. 22. to make the worse matter seem the better, i.e., to employ sophistical arguments in defence of a bad cause. Socrates was tried and condemned B.C. 399.

l. 26. countenance, appearance.

l. 31. the like instances, i.e., so good an instance.

l. 36. Epaminondas, the Theban, in the fourth century B.C.

destroyed the supremacy of Sparta in the Peloponnese. Up to his fortieth year he led a retired life and studied under Lysis the Pythagorean, who was an exile from Tarentum. Xenophon, see note on p. 60, l. 13.

Page 11, l. 1. abated, lit. beat down. It is connected with *to batter*.

l. 2. made way to, prepared the way for.

l. 3. this concurrence, etc. Cf. Gibbon, ch. x, "In the most polite and powerful nations, genius of every kind has displayed itself about the same period: and the age of science has generally been the age of military virtue and success."

l. 5. both, notice that the word is not used in its proper dual sense.

l. 9. captains, military leaders.

l. 12. about an age, i.e. about the same age.

l. 18. hurt than enable, unfit than qualify. For a similar use of *enable*, cf. p. 39, l. 3.

l. 20. empiric, derived from the Greek *empeiria*, i.e. experience. The name of Empirics was anciently given to a sect of physicians who contended that *practice* was the one thing necessary in their art. The word empiric is used generally to denote a quack, as opposed to one who has had a scientific training. For which we should say *who*.

l. 21. pleasing, i.e. with which the empirics themselves are satisfied. receipts, prescriptions.

l. 23. complexions, constitutions.

l. 24. accidents, symptoms.

l. 25. men of practice, whose knowledge is derived simply from their own experience, and who know nothing of the principles of law.

l. 27. falleth out, happens. besides, used as a preposition for *beside*, i.e. outside of. The final *s* in besides is an adverbial suffix.

l. 28. so by like reason, etc. Cf. Essay 1. "The chief use of studies for ability is in the judgment and disposition of business. For expert men can execute, and perhaps judge of particulars, one by one: but the general counsels, and the plots and marshalling of affairs come best from those that are learned. To judge wholly by their rules is the humour of a scholar. ... Studies themselves do give forth directions too much at large, except they be bounded in by experience."

l. 29. of doubtful consequence, dangerous: lit. of which the result cannot be foreseen.

l. 31. contrariwise, on the other hand. A learned man is not

necessarily a good governor, as we see in the case of James himself. "James, though an able man, was a weak monarch. His quickness of apprehension and soundness of judgment were marred by his credulity and partialities, his childish fears, and habit of vacillation. Eminently qualified to advise as a counsellor, he wanted the spirit and resolution to act as a sovereign. His discourse teemed with maxims of political wisdom, his conduct frequently bore the impress of political imbecility."—Lingard, vol. vii., p. 139.

l. 34. pettite men, politicians.

l. 35. to extenuate and disable, to depreciate and disparage. To extenuate now means to represent an evil as less than it is: and to disable means to disqualify.

l. 36. pedants. The word is derived from the Greek word *paidesein*, which means, literally, to bring up a child.

Page 12, l. 1. particulars, instances.

l. 2. the infinite disadvantage. Cf. "Woe to the land that's governed by a child!" *Rick. III.* ii. 3. 11. Stevens quotes as a parallel, "Woe to thee, O land, when thy king is a child." *Ecclesiastes*, x. 16.

l. 5. traduce, to ridicule.

l. 8. Seneca, for the influence of Seneca over Nero, see Merivale's *Roman Empire*, vol. vi. p. 273.

l. 10. contentation, satisfaction. Gordian died at the age of nineteen. Gibbon says of Mithridates, who was Gordian's father-in-law, that his 'wise counsels had no object except the glory of his sovereign and the happiness of the people.' Ch. vii.

l. 13. not much unlike, practically it was a government by pedants, because they advised the women who were the nominal rulers.

l. 14. the women, viz. Mamea his mother, and Mæsa his grandmother. The latter soon died, and Mamea then summoned to her assistance sixteen of the wisest and most virtuous senators, as a perpetual council of state. "The general tenor of her administration was equally for the benefit of her son and of the empire."—Gibbon, ch. vi.

l. 15. the Bishops of Rome, the Popes.

l. 16. as by name, for instance. Pius the fifth was a Dominican, Sixtus the fifth a Franciscan friar. Pius was Pope from 1565-1572. The most remarkable event of his Pontificate was the defeat of the Turks in the battle of Lepanto, in which his fleet was engaged in conjunction with those of Venice and Spain. Sixtus was Pope from 1585-1590. His vigorous, though cruel, administration is described by Gibbon, ch. lxx.

l. 18. pedantical, the Latin tr. has 'ignorant of affairs.'

l. 20. estate, state.

l. 23. to seek in, deficient in. points of convenience, expedients. accommodating for the present, arranging matters for the moment.

l. 25. reasons of state, political considerations.

l. 27. to recompense, to compensate for. We generally use the word now in the sense of to reward.

l. 31. use, need. Notice other, used as a plural pronoun.

l. 32. neither can, etc. This is an additional reason for entrusting the work of government to learned men.

Page 13, l. 1. sort with, agree with, resemble.

l. 2. immediate, present.

l. 4. hold way with, to equal. For the metaphor, cf. "We are afraid to put men to live and trade each on his own private stock of reason, because we suspect that this stock in each man is small, and that the individuals would do better to avail themselves of the general bank and capital of nations and of ages."—Burke.

l. 5. And as for, etc., as for the ways in which it is declared that learning indirectly unfits the mind, etc. The present form of the word seducement is *seduction*.

l. 7. To insinuate means properly to introduce indirectly. It is derived from the Latin word *sinus*, which means a bend.

l. 9. ministereth, supplies. every, each. For the explanation of this passage, see note on p. 9, l. 24.

l. 14. without prejudice, without any harm being done.

l. 15. regular, adhering strictly to rules.

l. 16. demonstrative. The terms demonstration and demonstrative are applied to propositions and reasonings which contain no mixture of hypothesis.

l. 18. the latitude of principles, the cases to which they are applicable. For instance, a Free Trader may logically concede that countries, which in the face of competition cannot develop their industries, may claim a temporary protection.

l. 24. quickness and penetration, vividness and force. Cf. the common proverb, "Example is better than precept." The word *quickness* in Bacon's time signified *life*: and *quick* was used where we should now say *living*.

l. 25. Clement the Seventh. Pops Clement VII. was contemporary with Henry VIII. of England. Guicciardini says of him—"Both in deliberation and in the execution of what he

had deliberated about, every fresh little consideration which might occur to him—every trifling impediment which he might encounter, seemed enough to make him fall back into the same state of confusion in which he had been before he began to deliberate.”—E. Guicciardini was an Italian statesman and historian, who lived 1483-1540.

l. 27. Cicero, Mommsen says of Cicero—“As a statesman without insight, opinion, or purpose, he figured successively as democrat, as aristocrat, and as a tool of the monarchs, and was never more than a short-sighted egotist.”—Vol. iv. p. 641. painted out, depicted. Cf. painted forth, p. 53, l. 1.

l. 29. Phocion, an Athenian general, born B.C. 402. He took part in the wars between the Athenians and Philip of Macedon, but he opposed what seemed to him the extreme policy of the great orator Demosthenes. He was condemned on a charge of treachery and put to death B.C. 317. Thucydides, bk. 2, ch. 40, makes Pericles say of the Athenians that they were lovers of wisdom without being effeminate.

l. 31. Ixion, see Bk. 2, p. 50—“Of this kind of learning the fable of Ixion was a figure, who designed to enjoy Juno, the goddess of power; and instead of her had copulation with a cloud, of which mixture were begotten centaurs and chimeras. So whoever shall entertain high and vaporous imaginations shall beget hopes and beliefs of strange and impossible shapes.” Jupiter took up a king named Ixion to heaven, to purify him from a murder. For his attempted seduction of the wife of Jupiter he was tied to a wheel that never ceased revolving.

l. 31. vaporous, boastful. The word naturally signifies something unsubstantial. Similarly Bacon uses the word fume (smoke) to signify a foolish idea.

l. 32. Cato, Marcus Cato, the last great champion of Republicanism in Rome. He committed suicide, B.C. 46, on hearing that his party was destroyed by the victory of Cæsar at Thapsus. See Mommsen, vol. iv. p. 469. After a certain point, Bacon says, it is useless to oppose the spirit of the age.

Page 14, l. 3. may be truly affirmed, etc. This is explained on pp. 21-2.

l. 6. it beareth them up, etc. The Latin tr. explains it—‘whilst they are in charge of affairs, they live in the eyes of men.’

l. 8. wear, decrease. It means lit. to suffer from wear or use.—W.

l. 9. giveth them occasion, etc., i.e., gives them opportunities of rewarding their friends and punishing their enemies.

l. 14. are in the eyes of them that look on, i.e., a mere braggart.

is sometimes bold in the presence of others, where cowardice would bring disgrace: so the industry of some men is to be attributed either to the desire of applause, or a regard for their own interests. designante, designs. Their industry is assumed for a purpose.

1. 17. according to, agreeable to: in harmony with.

1. 19. in the purchase, in the advantage which they derive from it.

1. 21. which can hold their mind, which seems to them worthy of attention.

1. 25. spirit, mind. There is no doubt that the retired life and mental habits of a student do tend to unfit him for active life. The concentration of his interests upon study makes him impatient of the necessary drudgery of business; and his mode of life makes him deficient in 'knowledge of the world.' Moreover, being accustomed never to come to a decision without complete evidence, he is unfitted to act in those frequent emergencies when either the requisite *data* for decision are not attainable, or when there is no time to weigh them.

1. 27. Some men, etc. Men of a shy and nervous temperament, when they have to appear in public or take part in public affairs, are as perplexed and embarrassed as a man brought suddenly out of darkness into the light of the sun.

1. 32. that, as for the objection that.

1. 35. expecteth, is waiting for.

the tides and returns of business, i.e., busy times. Business ebbs and flows: and in times when there is little or no business, the statesman can study. Bacon's picture is drawn from the ministers of Queen Elizabeth, who were all men of letters, and who "were the first generation of statesmen by profession that England produced."—See Macaulay's Essay on Bacon.

1. 38. tedious, dilatory. We generally use the word in the sense of tiresome.

Page 15, l. 6. his orations did smell of the lamp, i.e. they were the fruit of much care and study. The point of Demosthenes' reply is that he spent the night in study, Æschines in debauchery. Æschines, the Athenian orator, born B.C. 389, was the great rival of Demosthenes. While Demosthenes advocated a policy of opposition to Philip of Macedon, Æschines was the head of the peace party. When Ctesiphon proposed that a golden crown should be given to Demosthenes for his services to his country, Æschines indicted him for bringing forward an illegal proposition. Demosthenes replied, and Æschines was defeated. As a penalty for bringing forward an unfounded

accusation he had to retire from Athens. He died at Samos, B.C. 314.

l. 9. doubt, fear. expulse, expel.

l. 11. at unawares. See above, p. 10, l. 6.

l. 12. both, viz., business and learning.

l. 14. of, we should say *for*.

l. 15. depravation, elander. all, any. It is a Latinism.

l. 18. it, redundant. A man who simply obeys a rule of which he cannot understand the reason is compared to a blind man who follows a guide without seeing where he is going. Those who can see the reasonableness of duty, and are sufficiently enlightened to see what their duty is, are more likely to do it, than those who simply yield an unintelligent obedience to what seems an arbitrary command.

l. 20. without, outside: beyond dispute.

l. 21. maniable, manageable.

l. 22. thwart, perverse.

l. 23. clear, prove.

l. 28. blasphemy, used in the general sense of evil speaking, or elander. We use it to signify profane language.

l. 36. to brave, to challenge.

Page 16, l. 7. historiographer, lit. a writer of histories. We should say historian. Livy (50 B.C.-17 A.D.) wrote the history of Rome from its foundation to the death of Drusus, 9 B.C. Of the 142 books only 35 have come down to us, and two of those are imperfect.

l. 8. Marcus Varro, born B.C. 116, was distinguished for his vast and varied erudition. Only a few fragments of his great work on Roman antiquities have survived. the best or second orator, Bacon doubts whether Cicero or Demosthenes is first.

l. 11. the Thirty Tyrants, after the retirement of the Spartans from Athens, B.C. 404, the government of the city was for a short time in the hands of a Committee of Thirty. Bacon is mistaken here. It is true that Socrates was summoned before the Thirty and reprimanded. But his trial and death took place under the restored democracy.

l. 12. envious, malicious. For a similar use of the word in a much stronger sense than it now bears, Wright refers to Shaks. *Mer. of Ven.*, iii. 2. 285, "But none can drive him from the envious plea of forfeiture, of justice, and his bond."

l. 15. accumulate, loaded. This form of the participle in *verbe* derived from the Latin frequently occurs in Bacon's writings.

l. 18. sovereign, see on p. 6, l. 33. for, as. For a similar

estimate of the value of the Socratic dialectics, which we know chiefly in the dialogues of Plato, see Mill's *Essay on Liberty*, p. 28.

1. 19. manners, morals.

1. 21. humorous, capricious.

1. 23. redargution, refutation. Under governments so favourable to learning as those of Elizabeth and James, a defence of learning is unnecessary. Other governments, however, may in time arise who will be hostile to learning, and then Bacon's defence of it may prove useful.

1. 25. in regard of, on account of.

1. 28. bright stars, Bacon was, to a certain extent, a believer in astrology. See note on p. 33, l. 2. The words *bright stars* are from Horace, Bk. 1, Od. 3, l. 2. Castor and Pollux the twin sons of Leda were after death placed in heaven as the constellation of the Twins. They were worshipped as favourable to sailors. Cf.

"At their joint star, what time on storm-beat seamen
Dawns its white splendour,
Back from the rocks recedes the rush of waters,
Winds fall—clouds fly—and every threatening billow,
Lulled at their will, upon the breast of ocean
Sinks into slumber."

Martin's Translation. Burke, in his speech on Conciliation with America, quoted this passage to illustrate his arguments that conciliatory measures on the part of England would quiet the political storm.

Pages 16-25. Bacon now proceeds to consider the discredit which is supposed to have been brought upon learning by the position, character, manners, and studies of learned men themselves. Of these the last alone deserves consideration. No reasonable man would condemn a scholar because of the position in which circumstances had placed him, or the disposition with which nature had endowed him. However, we are dealing here not with rational objections, but with popular prejudices: so that the remaining considerations cannot be thus lightly dismissed. Learned men, it is said, are poor and obscure, and pursue mean occupations. This is not the place, Bacon says, for a panegyric on poverty, but it would be easy to show that the world owes much to poor but learned men. Wealth is not always a guarantee of virtue: nor ought learning to be regarded as a means of obtaining wealth. As for obscurity, most men allow the superior dignity and comfort of a private station: while there can be no greater mistake than that of regarding the

occupation of a teacher as either unimportant or contemptible. In its influence upon character, the tendency of learning is to refine: the defects which it produces are unselfishness, verging on imprudence, and an inclination to aim at too high a standard in the attempts to reform public manners. These, it must be confessed, are faults which 'lean to virtue's side': and learning itself supplies an antidote to the second of them. Again, it is said that in their intercourse with others learned men are wanting in tact. This is not necessarily the case: and, besides, what men praise as tact is often only another name for interested obsequiousness. Mere awkwardness of demeanour is not worth consideration. Bacon utterly condemns all selfishness and meanness, but he says justly that there are occasions on which scholars may, without loss of dignity, make concessions to those who are great and powerful.

1. 32. groweth to, attaches to.

1. 34. fastest, closest. Cf.

"Siloa's brook that flowed
Fast by the Oracle of God."—*Paradise Lost*, I, 11.

fortune, explained below to mean 'scarcity of means,' etc.

1. 35. manners, the word includes both disposition and demeanour. We use it now to denote only the latter.

Page 17, l. 2. we are not in hand with, we are not dealing with.

1. 11. by reason, equivalent to *because*, i.e., by the cause.

1. 13. common place, a subject for discussion. The word 'place' is frequently used by Bacon in the sense of a 'topic,' on the analogy of the Latin word 'locus,' (a place, or a topic) and the word 'topic' is the Greek 'topos,' which signifies properly 'a place.'

1. 13. friar... to whom, a similar construction occurs, Bk. 2, p. 6, l. 6. In the Latin translation it is '*mendicant friars*,' a body of men so called from the vow of poverty which they took. They belonged to the Franciscan and Dominican orders of monks. For an account of their life and work, see Green's *History of the English People*, vol. I, p. 256.

1. 17. borne out, compensated for. The Christian priesthood would have been condemned long ago, if it had been judged by the conduct of the members of its higher orders: it was tolerated out of respect for the virtues of its humbler and poorer members. We may notice, in connection with Bacon's remarks, the *Defence of Poverty*, by William of Ockham. It was published in 1323, and was a violent protest against the power, pride, and wealth of the Pope and the Prelates of the Church. Machiavelli was a Florentine of the 16th century. His books embody the principles

of the statesmanship of his time: and he himself has been unfairly charged with the immorality which distinguished the statescraft of that age in Italy. Bacon is referring to ch. 1 of the 3rd book of his *Discourses on Livy*.

l. 19. delicacy, luxury.

l. 21. civility, refinement. Bacon means that mere material prosperity does not constitute civilization. Without learning man would be "devoid of every finer art and elegance of life."—Thomson, *Summer*, v. 1761. The poverty of learning means the poverty of the learned.

l. 23. worthy the observation, it is worth noticing. reverent, respectful, venerable.

l. 25. without paradoxes, the Romans were distinguished for plain common sense. The words paradox and paradoxical signify what runs counter to received opinion.

l. 36. after that, See on p. 10, l. 1.

Page 18, l. 4. summary, efficacious. The counsellor alluded to in the text is supposed to be Sallust.

l. 11. it was truly said, the saying is attributed to Diogenes the Cynic.

l. 15. misgovernment, intemperance.

l. 24. not taxed with, free from.

l. 25. civil, public.

l. 29. allowing, admitting: approving. It is the Latin *alloware*, to praise. Bacon means that 'it at once recommends itself to our minds, and commands our assent as soon as it is proposed.'

This only, etc. Bacon means to say that the public often keep a man's merits in remembrance all the more, because Government does not honour them as they deserve. Tacitus says of another man, "The refusal of the honour heightened his renown." It was the custom at Roman funerals to carry in procession the images of the ancestors and relations of the deceased. See Tac. *Ann.* iii. 76. Junia, who died A.D. 22, was the wife of Cassius and the sister of Brutus. Their images were not carried in the procession because they had been guilty of the murder of the first Caesar.

Page 19, l. 2. traduced to contempt, held up to contempt. *Traducement*, below, signifies 'calumny.' Cf. p. 12, l. 5. Mr. Wright points out that the word is used here with a distinct reference to its original meaning 'to lead along, lead in procession,' and so 'to parade.' Hence 'traduced to contempt' would mean 'paraded contemptuously, or so as to excite contempt.'

l. 4. it, redundant. Cf. p. 2, l. 17. disesteeming, disparaging.

l. 5. conversant in or about, to be, to have to do with; to be concerned with.

l. 9. curious, careful.

l. 11. corroborate, which has attained its full strength. Cf. p. 16, l. 15.

l. 12. use to have, are accustomed to have.

l. 13. applications, appliances.

l. 14. rabbins, theological teachers. The word literally means *masters*.

l. 15. say they, i.e. from which text they infer.

l. 17. howsoever, etc. Wright compares Florio's Montaigne, p. 80, "I have in my youth oftentimes been vexed to see a pedant brought in, in most of Italian comedies, for a vice or a sports-maker." For the meaning of 'pedant,' see p. 11, l. 36.

l. 26. Jesuits, so called from the 'Society of Jesus' to which they belong. They are Catholic priests, and the Society was formed in 1534. For an account of their services in the cause of education, see Buokle's *History of Civilization*, vol. ii. p. 336; and Green's *History of the English People*, vol. ii. p. 262.

l. 28. The better, etc. Their very cleverness makes them the more mischievous. In the Latin translation, which was intended to be read by scholars in Catholic as well as in Protestant countries, passages like this, depreciatory of the Catholic Church, are omitted.

l. 30. For Agesilaus, see p. 61, l. 9. Bacon is referring to Plutarch's *Life of Agesilaus*, ch. 12.

Page 20, l. 1. temperatures, dispositions.

l. 3. studies, In the Latin translation Bacon adds, 'Except when it enters into a mind which is much depraved, learning corrects and improves the natural disposition.' Cf. Cardinal Newman's *Idea of a University*, Discourse viii. § 4.

l. 5. indifferent, impartial.

l. 7. not inherent, that is to say, not from such manners as are inherent, etc. For so we should say in.

l. 12. contend, strive.

l. 14. to reduce, etc., to bring back again. The Latin translation has—'They strive to impose upon a dissolute age the moral code of a rigid antiquity.' Cf. "It is no inconsiderable part of wisdom, to know how much of an evil ought to be tolerated, lest by attempting a degree of purity impracticable in degenerate times and manners, instead of cutting off the subsisting ill practices, new corruptions might be produced for the concealment and security of the old."—*Burke*. manners, morals. Cf. l. 20.

l. 16. caveats, warnings. Cf. below, l. 24. walks, lines of life, i.e., relatively to a student, books.

Solon, a celebrated Athenian legislator, born about 638 B.C.

l. 23. contestation, strife. See Cicero, *Ep. ad Fam.* l. 9. Improvements, according to Plato, should be effected by persuasion, not by force: and as he saw that, if he held office, he could not introduce the reforms which he considered necessary without using force, he preferred not to hold office. In the *Crito*, Socrates is represented as refusing to violate the laws of his country by escaping from the prison to which he had been condemned.

Cæsar's counsellor, See p. 18, l. 2.

l. 28. Cato the second, p. 13, l. 32. No violent revolution should be attempted either in morals or politics. We should attempt to raise the standard of both gradually, as the people advance in respect of education.

l. 33. Plato's republic, an ideally perfect state sketched by Plato: a Utopia.

l. 34. excuse and expound, at the same time apologises for them, and shows why they did it. The philosophers, says Cicero, purposely proposed an unattainable standard of perfection, in order that, in their attempts to attain to it, men might not fail to attain to the highest perfection of which they were capable.

Page 21, l. 21. those five years, cf. p. 12, l. 7.

l. 25. endueth, an old spelling of *endoweth*.

l. 26. casualty, uncertainty. We use the word in the sense of 'an accident.' Here it means 'liability to accident.' With this paragraph cf. pp. 13-14, and *Essay* xxxiii. In the Latin translation Bacon says that scrupulous honesty and unselfishness are attributed to learned men 'perhaps not unjustly.'

l. 28. to esteem, to think. We no longer say 'to esteem *that*.'

l. 30. ordainment, position: appointment. God ordained them for something higher than mere happiness. In illustration of this passage the student may profitably read two fine chapters in Carlyle's *Past and Present*, bk. iii. ch. 4 and 12.

l. 31. as kings and the states, etc., i.e., whether they serve under a king or a republic.

l. 33. I have made profit, etc. Wishing to emphasize the fact that power is a trust, Bacon appropriately uses words taken from the well-known parable of the talents—"The kingdom of heaven is as a man travelling into a far country, who called his own servants, and delivered unto them his goods, and unto one he gave five talents, to another two, and to another one; to every

man according to his several ability; and straightway took his journey.... After a long time the lord of these servants cometh and reckoneth with them. And so he that had received five talents came and brought other five talents, saying, Lord, thou deliverest unto me five talents: behold, *I have gained*, beside these, five talents more. His Lord said, Well done, thou good and faithful servant: thou hast been faithful over a few things, I will make thee ruler over many things: enter thou into the joy of thy lord," etc. *Matt. xxv. 14*. Our use of the word *talent* in the sense of *ability* is derived from this parable.

1. 36. apprehension, understanding.

Page 22, l. 1. nor ever, etc., i.e., who confine their attention to their own individual interests, without thinking of the public good.

do refer, etc. Cf. "It is a poor centre of a man's actions himself.... The referring of all to a man's self is a desperate evil in a servant to a prince... whatsoever affairs pass such a man's hands, he crooketh (bendeth) them to his own ends, which must needs be often eccentric to (different from) the ends of his master or state."—*Essay xxiii*.

1. 5. estates, kingdoms.

1. 6. cockboat, little boat. The word shows the insignificance of the fate of the individual, in comparison with that of the state, which is compared to a large vessel. Shakespeare uses the form *cock*. It is from the Latin *concha*, a shell, and appears in the derivative *coxswain*, i.e., cock's-swain.

1. 7. make good their places and duties, i.e.; perform the duties of their station. Cf. "Divide with reason between self-love and society: and be so true to thyself, as thou be not false to others, specially to thy king and country."—*Essay xxiii*. For us to, cf. p. 19, l. 12.

1. 9. stand, remain safe. The meaning of this passage is that, if they are preserved through seasons of rebellion and revolution, they owe their safety not to their power of making friends with the stronger party, but to the universal respect which their honesty commands.

1. 11. versatile, lit. changeable. Bacon says they are not preserved by their skill in changing from side to side. carriage, behaviour.

1. 12. tender, scrupulous.

1. 13. withal, frequently used for *with*, after the object at the end of the sentence.

1. 14. tax, burden, i.e., try it. No amount of misfortune will induce such a man to become dishonest.

1. 15. allowances, approval. Cf. p. 18, l. 29.

1. 16. *excusation*, excuse. There is no need to deny or to apologise for what every one approves of.

1. 18. more probably, *i.e.*, in a way which will meet with more general approval; more successfully.

1. 19. *in applying themselves*, in accommodating themselves to: in humouring.

1. 22. *exquisite*, careful.

1. 23. *it is a speech*, etc. A lover is content with contemplating his beloved: but no one is of sufficient importance to claim the undivided attention of the wise man. Cf. "It was a poor saying of Epicurus, '*We are a sufficiently large theatre, one for another*': as if man, made for the contemplation of heaven and all noble objects, should do nothing but kneel before a little idol, and make himself subject, though not of the mouth, as beasts are, yet of the eye, which was given him for higher purposes."—*Essay* x.

1. 26. *I shall yield*, I am willing to admit.

1. 29. *cause*, viz., why learned men do not study the character of individuals. The cause is their uprightness. a rejection upon choice, a deliberate refusal to do so.

1. 30. *bounds of observation*, cf. "Counsellors should not be too speculative into their Sovereign's person. The true composition of a counsellor is rather to be skilful in their master's business, than in his nature: for then he is like to advise him and not to feed his humour"—*Essay* xx.

1. 34. *a man's self*, Bacon generally uses 'a man' where we should use the indefinite 'one.'

1. 35. *speculative* is used in its literal sense of 'prying into.'

1. 36. *to work*, to influence. *to wind*, to make him do what you please. The Latin tr. has 'lead him about at your pleasure.' Cf. our expression, 'to twist a person round one's fingers.'

Page 23. 1. 2. *entire*, honest. It is the Latin *integer*, which means both *whole* and *honest*.

1. 4. *the Levant*, i.e. the East generally. The Greek historian Herodotus makes this custom as old as 700 B.C. Ellis supposes that Bacon is referring to the narration of some modern traveller.

1. 7. *bent*, crafty: not straightforward.

1. 8. *the hearts of kings*, etc., p. 1, l. 13.

1. 13. *carriage*, demeanour. *small and ordinary*, etc. In the Latin translation Bacon adds, 'For instance in their looks, gesture, gait, daily conversation, and the like.'

1. 16. *consequence*, inference.

1. 19. *uncivilly*, with bad taste. Cf. "The speech of Themistocles, the Athenian, which was haughty and arrogant in taking

so much to himself, had been a grave and wise censure applied at large to others. Desired at a feast to touch a lute, he said he could not fiddle, but yet he could make a small town a great city."—*Essay* xxix. A man may be wanting in small accomplishments, and yet be a very able man.

l. 23. well seen in the passages, well versed in the transactions. The Latin participle *spectatus*, lit. *seen*, is also used in the sense of *tried* or *proved*.

l. 24. to seek in, p. 12, l. 23.

l. 25. punctual, minute.

l. 27. gallipots, glazed earthen pots.

l. 28. antiques, fanciful figures. The word used in the Latin translation is 'Satyrs.' Alcibiades, in the *Symposium*, one of the dialogues of Plato, compares Socrates to the masks of the god Silenus, the faces of which were hideous: but when they were opened, images of the gods were found inside. Spedding supposes that Bacon was thinking of the following passage in the French humourist Rabelais: "Silenuses formerly were small boxes, such as we see at present in apothecaries' shops, with merry and grotesque figures painted on the top." For sovereign, see p. 6, l. 33.

l. 29. confections, medicines. It means lit. 'something made up,' Latin *conficere*. The words comfit, confection, etc., are from the same root. to an external report, to those who judged by appearances.

l. 34. in the meantime, i.e., before proceeding further, I must warn my readers that, etc. allowance, p. 18, l. 29

l. 36. wronged themselves, disgraced themselves.

Page 24, l. 1. trencher philosophers, hangers-on at the tables of the great. A trencher is a dish or plate on which food is placed. It is from the French word *Trencher*, to cut.

l. 4. A parasite means literally 'one who eats with another': 'a guest.' It is used to denote those who by flattery manage to live at the expense of others. The satire of Lucian, referred to below, is directed against Greek scholars, who practised the arts of the parasite in the houses of wealthy Romans, and so brought disgrace both on themselves and their calling.

l. 4. Lucian, a satirist and humourist, was a native of Samosata on the Euphrates. He was born about 125 A.D.

l. 6. would needs, etc., insisted on his carrying. Needs is the old genitive used adverbially.

l. 7. uncomely, adv., awkwardly. We use the word as an adjective.

l. 8. of a Stoic, from being a Stoic. It is a literal translation of the Latin *stoico*.

l. 9. a Cynic, there is a play on the word *Cynic*, which means *dog-like*, and was also the name of a school of Greek philosophers, to which Diogenes, mentioned below, belonged. The name 'dog-like' was perhaps given to these philosophers from their coarse way of life. The Stoics were another sect of philosophers, remarkable for their austerity and indifference to worldly goods. The name Stoic is derived from the *Stoa Poecile* or colonnade in Athens where Zeno taught.

l. 11. abused, turned to a bad use.

turning, etc., i.e., representing old and ugly women as young and beautiful, and vicious women as chaste. Hecuba was the wife of Priam, king of Troy. Helen was the wife of the Grecian Menelaus; her seduction by Paris was the cause of the Trojan war. Faustina was the wife of the Roman emperor, Marcus Antoninus, and was celebrated for her immorality. Lucretia was a virtuous Roman matron who was violated by the son of king Tarquin, and who, rather than survive the shame, committed suicide.

Ellis says that the writings of Du Bartas were held in great esteem by King James. He was born in 1544, at Montfort in Armagnac. His chief poem was on the subject of the Creation.

The student will find some remarks on literary patronage in Macaulay's *Essay on Johnson* and in Buckle's *History of Civilization*, vol. ii., ch. iv. Patronage was necessary to the scholar in times when readers were so few that he could not maintain himself by his pen.

l. 15. for that, because.

l. 20. it was to some such, etc. As Bacon himself had done: see above, pp. 1-4. argument, the subject. The word *argumentum* bears this sense in Latin.

l. 23. tax, find fault with. morigeration, humouring. It is a Latin word, and signifies literally 'bearing the habits' of a man.

l. 24. application, p. 22, l. 19.

Diogenes, it should be Aristippus.

l. 28. the one sort, etc., philosophers.

l. 29. the other, etc., the rich.

l. 30. Aristippus, born about 435 B.C. He was the founder of the Cyrenaic school of philosophy. Dionysius was the ruler of Syracuse.

l. 33. tender, sensitive.

l. 34. that he would offer, i.e., for offering. The point of Aristippus' reply is that a philosopher, who has a request to make, must make it prostrate, if the king will not listen to him.

in any other attitude. Cf. Johnson, "You may be prudently attached to great men, and yet independent. You are not to do what you think wrong: and, Sir, you are to calculate, and not to pay too dear for what you get. You must not give a shilling's worth of court for sixpence worth of good. But if you can get a shilling's worth of good for sixpence worth of court, you are a fool if you do not pay court."

Page 25, l. 7. disallowed, disapproved.

l. 8. outward, i.e., in appearance.

Pages 25-34. Bacon now proceeds to consider the last and most serious objection which has been raised against learning, and which is based on the results of the studies of learned men. He confesses that there are certain spurious kinds of learning, but genuine learning is not for this reason to be despised. Bacon proposes first to eliminate and discard the spurious kinds of learning: when this has been done, the value of true learning will be appreciated.

The three circumstances which have brought discredit upon learning are these: (i.) learned men have propounded untruths: (ii.) they have been over subtle and contentious: (iii.) they have been guilty of affectation.

Affectation relates not to matter, but to style, and is first considered. The Reformers, says Bacon, were led to a careful study of the ancient writers, partly with a view of deriving from them support for their own opinions, partly with a view of ascertaining what was that primitive practice of the Church, which they wished to restore. By this diligent study of the ancient tongues, the Reformers were inspired with an admiration for them which, added to their hatred of the barbarous style of the schoolmen, and to the necessity which they were under of expressing themselves in language which would impress the vulgar, led to an affected purism of style and a luxuriant extravagance of speech. Matter was, by them, sacrificed to style. This fault of affectation shows itself at intervals, and always brings discredit upon learning. Style is by no means to be despised, but a good style is not to be accepted in the place of matter.

The second fault, viz., that of over-subtlety and contentiousness, is worse than the first. There is no great harm in affected language, provided it is the vehicle of truth: but nothing can atone for deficiency in the matter. It is the fault of which the schoolmen were conspicuously guilty. By constantly exercising their ingenuity upon very limited data, they have spun an endless but quite unsubstantial and worthless web of

philosophy. This over-subtlety of the schoolmen showed itself both in their choice of subjects, and in their method of discussion. They chose the most fruitless subjects for discussion: and in the discussions themselves they contented themselves with setting up each proposition in science as an object of attack and defence. Such a method could only issue in fruitless altercations about trifles. A proposition is to be considered with the limitations which the context requires: thus looked at, it may be true: though stated absolutely, it may be false. A stick will stand upright in the middle of a bundle: but unsupported, it will fall to the ground. The schoolmen might have advanced the cause of learning, if they had sought the necessary data for reasoning either from God's word or from his works. They failed because they were content to argue from their own *a priori* ideas, or to spin endless syllogisms from a few unverified premises.

The third fault—untruth—is the worst of all. It is the very negation of knowledge. It is due to credulity and intentional deceit, two faults which generally coexist. Credulity manifests itself in three ways, (i.) with regard to matters of fact. Men are too ready to give credence to alleged miracles, or to prodigies in natural history. (ii.) A man may be too credulous as to what a given art can effect. Alchemy, astrology, and magic are effective arts within certain limits: but it is well known how the professors of them have imposed upon the credulity of mankind. (iii.) Men give too ready an assent to any proposition which is sanctioned by the authority of a great name.

1. 13. which is principal and proper to, *i.e.*, with which the present argument is principally and more appropriately concerned.

1. 17. aspersion, the word literally signifies *sprinkling*, or *admixture*. It is used in this sense on p. 43, l. 19. The sentence in the text might mean 'to save it from being confounded with the rest.' But the word *aspersion* has also derived from the Latin the sense of *calumny*, and Bacon probably uses it in that sense here, so that the sentence would mean, 'to show that it does not deserve the reproaches which have been directed against the rest.' The Latin translation has 'to save from reproach.'

1. 18. to scandalize and deprave, to abuse and depreciate.

1. 19. retaineth the state, has not degenerated. For 'the' we should now say 'its.'

1. 20. upon, we should say 'of.'

1. 21. to blemish and taint, to reproach and blacken. Mr. Wright quotes appropriately from *Macbeth*, iv. 3. 124, 'The taints and blames I laid upon myself.'

1. 23. I have no meaning, I do not intend.

1. 24. *animadversion*, consideration. It is a Latin word signifying literally 'a turning of the mind towards' a thing.

1. 26. unto, concerning.

1. 29. traduced, calumniated. Cf. p. 19, l. 2.

1. 33. *ourious*, subtle. The Latin translation adds—'In things which are of little use.' *ouriosity* is either in matter or words, the Latin translation adds by way of explanation—'that is to say, when men labour at unimportant subjects or devote too much attention to purity of style.'

1. 34. *in reason*, as we should have expected *a priori*. Credulity produces false or fantastical philosophy. Frivolity, in the sense of 'curiosity in matter,' i.e. subtlety in trifles, produces contentious philosophy. Frivolity, in the sense of 'curiosity in words,' i.e. undue attention to verbal purity, leads to affectation.

1. 35. distempers, diseases.

Page 26, l. 1: fantastical, fanciful.

1. 2. delicate, affected.

1. 4. Martin Luther, In the Latin translation the words which would offend the Catholics are omitted, and Bacon merely says that 'though this extravagance of luxuriant speech has been admired at intervals in the past, yet it grew to an extraordinary pitch about the time of Luther.' He attributes this to the desire to attract the vulgar by sermons and to a hatred of the scholastic style.

1. 5. *in discourse of reason*, by the exercise of his reason. Shakespeare uses the phrase to denote the reasoning faculty. *Hamlet*, i. 2, 150.

a province, a task. It is probable that the Latin word 'provincia' meant 'a public duty,' before it acquired the more special meaning of 'a district.'

1. 9. to awake all antiquity, i.e. to call attention to the opinions of the ancients. succours, we should now use the singular.

1. 13. revolved, considered.

1. 14. exquisite, careful. For *travail*, see note on p. 9, l. 29.

1. 21. the Schoolmen, the philosophers of the middle ages. The Scholastic philosophy lasted, roughly speaking, from the ninth to the fifteenth century. The name was taken originally from the teachers in the schools established by Charlemagne.

1. 22. part, party. The Schoolmen were all ecclesiastics, and, of course, members of the Catholic Church.

1. 24. to coin and frame new terms, we are indebted to the

Schoolmen for many of the technical terms of the formal logic, and for a number of words, such as essence, entity, substance, etc., which are familiar to students of philosophy.

1. 28. the Pharisees, a sect of the Jews, remarkable for their scrupulous observance of the precepts and ritual of the Mosaic Law.

1. 33. the vulgar sort, the common people.

Page 27, l. 1. copia, a Latin word for fluency.

1. 4. round and clean, perfect and polished. The word 'round' expresses an absence of roughness.

1. 5. falling, cadence: rhythm.

1. 7. tropes, a *trope* is a figure of speech. It is derived from a Greek word signifying to turn, or twist.

1. 8. life of invention, lively invention, vigorous.

1. 9. watery, thin: unsubstantial. The word denotes the absence of matter in his speech. Osorius was Bishop of Sylves in Algarves. He died in 1580. One of his chief works was a book containing an account of the Portuguese discoveries and conquests which took place in the reign of Emanuel the Great (1495-1521).—E.

1. 10. to be in price, to be valued: a Latinism.

1. 11. Sturmius (1507-1580) was a Professor at Paris and Strasburg. He has been styled 'the German Cicero.'—E. Hermodenes lived under Marcus Aurelius. He was so successful in communicating a polished style that he went by the name of 'the file.' curious, p. 19, l. 9.

1. 13. Car of Cambridge, Nicholas Carr (1523-1568) was Professor of Greek in the University of Cambridge.

1. 14. Roger Ascham (1515-1568) was tutor to Queen Elizabeth.

1. 16. delicate, p. 26, l. 2.

1. 17. Erasmus, one of the most learned scholars of the Renaissance period. See Green's *History of the English People*, vol. ii, p. 81.

1. 18. The last word in Erasmus' sentence is '*Cicerone*': the Greek word which echoes to it is '*one*,' i.e., 'thou donkey.'

1. 31. patent, any warrant issued by the sovereign, and conferring a title or privilege on a subject. It is so called because such a warrant is open to public inspection. limned book, illustrated book, though it hath large flourishes, though it is much ornamented: in the Latin translation, it is—'though it be decorated with flourishes of the pen and flowers.'

1. 32. It seems, etc. Pygmalion fell in love with a statue of a

woman that he had made. At his request Venus endowed the statue with life. To admire a frivolous book is like falling in love with lifeless stone. Cf. 'In all speech, words and sense are as the body and the soul. The sense is as the life and soul of language, without which all words are dead.'—Ben Jonson.

Page 28, l. 1. *it, i.e., the clothing and adorning, etc.*

l. 3. *sensible, striking the senses. plausible, such as attracts the admiration of readers. The literal meaning of the word is to attract or deserve applause: and it is frequently used in this sense by Bacon.*

l. 7. *Inquisition, cf. p. 5, l. 20.*

l. 10. *period, conclusion. Attractiveness of style must not blind us to the necessity of strict proof. The meaning of the word satisfactory is explained by the following passage from Bacon's *Of the Interpretation of Nature*.—'In the inquiring of causes and reasons it is much easier to find out such causes as will satisfy the mind of man and quiet objections than such causes as will direct him,' etc. Cf. Bk. 2: 'He that receiveth knowledge, desireth rather present satisfaction, than expectant inquiry; and so rather not to doubt, than not to err.' if a man be to have, etc., i.e., if a man have occasion to make use of his knowledge.*

l. 11. *civil, p. 18, l. 25.*

l. 16. *Adonis, a beautiful youth beloved by Venus.*

l. 17. *Hercules, the strong man of Grecian mythology. Hence scholars who shrink from no labour in study are called 'Hercules' followers in learning.' Burke talks of 'a man with an herculean robustness of mind, and nerves not to be broken with labour.'*

l. 21. *distemper of learning. In the Latin translation Bacon adds—'There is also another kind of style a little better than the former, and commonly following it in point of time, which aims at having the words pointed, the sentences concise, and the language rather forced than flowing. By a trick of this kind everything seems more ingenious than it really is. Such a style is found conspicuously in Seneca, and to a less extent in Tacitus and Plinius Secundus, and for some little time it has been pleasing to the ears of our own time. It is true that it is generally pleasing to men of ordinary understanding, so that it brings some dignity to literature: but it is justly despised by more polished judgments, and may be considered as one of the diseases of learning, because it is a kind of hunting after words and their charm.'*

l. 22. *The second, Supply 'distemper of learning.' In order to understand this section the student should bear in mind that*

the Scholastic Philosophy was, in the main, an application of the logic of Aristotle to the development and explanation of the doctrines of the Christian faith. This was its character on the whole. Occasionally we meet with a Schoolman who left the beaten track of theology. Roger Bacon, for instance, was as diligent and enthusiastic a votary of science as his more celebrated namesake. Cf. Green's *History of the English People*, vol. i., p. 259. But the circumstances of the time were not favourable to scientific inquiry: and the great evil of Scholasticism, in Bacon's opinion, was that it diverted men's minds from more useful studies. Cf. Hallam's *Middle Ages*, vol. iii., p. 432. We may distinguish certain periods in Scholasticism. The first of the Schoolmen was Erigena, who was born between 800 and 810. The only work of Aristotle with which he was acquainted was the *Logic*. His philosophy was that of the later Platonists: and his system is an attempt to reconcile theology with his philosophy by means of the rules of the Aristotelian logic. With him philosophy was only so far subject to theology, that the latter determined the former in all cases where the two diverged. He allowed himself full liberty of speculation on points which did not come within the sphere of theology. His writings were afterwards condemned by the Church. The tenth, eleventh, and twelfth centuries were occupied with the great struggle between the Realists and the Nominalists, a struggle which gave the Church an opportunity of asserting a constantly increasing authority, since the various issues raised by the conflict had a distinct bearing on theological dogmas. The most conspicuous figure in the twelfth century is Abelard, who came into conflict with, and was condemned by the Church, for his fearless application of the Aristotelian dialectic to subjects which, according to the contention of the Church, were to be settled by authority. It was not until the thirteenth century that Scholasticism attained its full development and all philosophy was included in theology. This phenomenon was due to the introduction into Europe of the ethical, physical, and metaphysical treatises of Aristotle. Armed with these the Church was in a position to put forth an authoritative exposition of the truth on *all* subjects. The most eminent representative of this fully developed Scholasticism is Thomas Aquinas. Thus the history of Scholasticism displays a progressive limitation of the right to freedom of thought. The last representative of the Scholastic method is the famous William of Ockham. When he appeared Scholasticism was doomed. In his works we see the human mind once more asserting its irrepressible claim to the right of freedom in speculation. Ockham was a revolutionist both in philosophy and politics. He employed his dialectic skill in attacking the main positions of the philosophy of Aquinas. He was scholastic in his method, but his philosophical ideas are those not of the past, but of succeeding generations. It is not

then to be wondered at if the Schoolmen only succeeded in weaving a web of contentious metaphysics. When the mind has exhausted the *data* presented to it, if no fresh experience is forthcoming, it must either be idle, or return upon the same *data* from which everything of value has already been extracted, or else it must invent questions for the mere purpose of discussing them. The only *data* presented to the Schoolmen were the Christian dogmas and the doctrines of Aristotle. These were accepted on authority, and conclusions were drawn from them by syllogism. The want of fresh *data* inevitably drove men to controversies about trifles. A philosophy of any value presupposes scientific knowledge. Bacon, who was impatient of all metaphysical and theological discussions, naturally despised Scholasticism. He gives the true reason of the failure of the Schoolmen—"Their wits were shut up in the cells of a few authors," and they had "no great quantity of matter." They did not even know Aristotle at first hand, but only through Arabian commentators. Science wants *data*: and a fruitful philosophy must rest on a wide and well-considered experience. Scholasticism failed because it had no experience, and because it had a bad method. This is the truth which Bacon wished to impress upon the world. He says in the *Nov. Org.*, Bk. I, Aph. 121—"Subtlety of discussion and reasoning is too late and is useless when the principles of science have once been established: the only, or, at any rate, the principal time when subtlety is required is when we are weighing evidence and establishing principles—Nature like Fortune has long hair in front, but she is behind bald." Roger Bacon gives the same preference to inductive over formal reasoning—and the general resemblance between Roger and Francis Bacon is very strong—see Hallam, *ibid.* The student will find an excellent sketch of the Scholastic philosophy in Milman's *Latin Christianity*, bk. 14, ch. 3. He may also consult with advantage Whewell's *History of the Inductive Sciences*, vol. 1, bk. 4. For the Scholastic character of Indian philosophy, see Duncker's *History of India*, bk. 6, ch. viii.

1. 27. *respective*, having reference to.

1. 28. *extensive*, capable of being extended to. St. Paul is warning the person to whom he writes to keep the Christian faith in its primitive purity and simplicity. 1 *Tim.* vi. 20. Bacon condemns the Schoolmen for importing new ideas and drawing unmeaning distinctions, which become the subject of violent but unfruitful controversy. In the third *Essay* Bacon remarks upon this same text from St. Paul, "Men create oppositions which are not, and put them into terms so fixed, as whereas the meaning ought to govern the term, the term in effect governeth the meaning."

1. 33. *strictness of positions*, dogmatic assertions.

Page 28, l. 3. vermiculate, wriggling like a worm, intricate. which have indeed, etc., a book which bristles with discussion appears to be full of life: but if the discussions are trivial, the book is worthless.

l. 4, quickness, see p. 13, l. 24.

l. 8. their wits being shut up, etc., their knowledge being confined to a few authors.

l. 9. their dictator, the authority whom they followed blindly. The Dictator was a magistrate whom the Romans appointed on extraordinary emergencies, and who, so long as he held office, possessed absolute power. Dante, in the *Divina Commedia* (A.D. 1300), calls Aristotle "the master of those that know." He represents him as sitting as head of "the philosophic family," and says that Plato and all the rest look up to him.

l. 15. which, viz., working on matter. By working on matter, says Bacon, I mean studying nature.

l. 16. creatures, i.e., all created things. We now use the word to express living things. worketh according to the stuff and is limited thereby, i.e., does not transcend experience, but asserts such propositions only as are warranted by experience.

l. 17. if it work upon itself, i.e., if it employ itself merely with ideas of its own creation, and not about ideas which are abstracted from actual facts.

l. 23. whereof there are no small number, Bacon regarded all metaphysical speculation as 'fruitless,' because not productive of any material result. The following questions, which are discussed by Thomas Aquinas, may serve as more glaring instances of the 'fruitless speculation of the Schoolmen':—Whether all angels belong to the same genus. Whether demons are evil by nature, or by will. Whether they can change one substance into another. Whether Christ possessed merit in the very instant of his conception, or not till the following instant. Whether an angel can move from one point to another without passing through the intermediate space. Whether, if Adam had not sinned, exactly equal numbers of males and females would have been born.

l. 24. the manner, etc. The method of the Schoolmen is correctly described in the text. Generally each inquiry begins with a statement of the different points which are to be elucidated. To each of these is allotted a separate paragraph. One or more reasons are alleged in favour of the opinion which the author means to reject. Some objection, generally founded on a quotation from some conclusive authority, is then stated against it, and then the author gives his own opinion in what is called the *conclusion*, and proceeds to refute one by one the arguments he has adduced on the other side. It is impossible not to recog-

nise in this procedure the influence of a system of oral disputation.—E. See Bk. 2, p. 101, where the substance of this section is repeated. Cf. Ueberweg's *History of Philosophy*, vol. i., p. 432. "The method of the Schoolmen consisted first in connecting the doctrines to be expounded with a commentary on some work chosen for the purpose. *The contents of this work were divided and sub-divided, until the separate propositions, of which it was composed, were reached. Then these were interpreted, questions were raised with reference to them, and the grounds for affirming and for denying them were presented.* Finally the conclusion was announced," etc. Bacon means to say that the truth or falsehood of a proposition cannot be determined without taking into account the limitations imposed by the other propositions of the science, of which it forms a part. The proposition that 'wages tend to an equality' is false, absolutely: it is true in the place which it occupies in an English treatise on economy.

1. 28. which solutions, etc. Milman says of Thomas Aquinas, that "his luxury of distinction and definition, if it be not a contradiction, his imaginative logic is inexhaustible." Again, talking of Scotus' vindication of the grace of God, he says that "Scotus draws a distinction (he saves everything by a distinction which his subtlety never fails to furnish) between the absolute and secondary will of God." Again, talking of the controversy between the Scotists and Thomists, he says that "one defines away necessity till it ceases to be necessity, the other fetters free-will till it ceases to be free." The following may serve as an instance of a "solution" which in reality consists merely of formal distinctions. Thomas Aquinas thus proves that the beginning of the world in time is not philosophically demonstrable. "It is said that the cause must precede the effect: but we must draw a distinction between efficient causes and perfect causes. The *dictum* applies to the former, but not to the latter. God is a perfect cause, and could by his almighty power create an eternal world." Again, that the world was created from nothing does not prove its temporal origin. Here we must draw a distinction between temporal succession and order. 'From nothing' means 'after nothing,' but not necessarily in the sense of temporal succession. Again it is said, that we cannot pursue the chain of causation to infinity, but that at some point we must come to that which is uncaused. Those who urge this objection overlook the distinction between intermediary causes and the absolute cause." In the *Paradise*, c. 13. Dante represents Thomas Aquinas as emphasizing the importance of drawing distinctions in all affirmation or negation. The same method of demonstration was employed generally by the Schoolmen both in theology and physics. In the sphere of physics their formal distinctions were generally supported by quotations from Aristotle, whose physical speculations are peculiarly fanciful, so that the

student will easily understand that this method would never enable the Schoolmen to make any progress in scientific discovery. At the best, their method was but an analysis, according to the rules of logic, of abstract terms and popular generalizations. So long as the terms which men use are an inadequate or incorrect expression of facts, mere formal consistency in reasoning is simply consistency in error. Moreover, *progress* was impossible. No new ideas were got by fresh examinations of nature, consequently the Schoolmen were perpetually engaged with the same questions. Another circumstance which hindered progress was that they were not allowed to question their premises. In the sphere of theology they were bound by the dogmas of the Church; in the sphere of physics, 'Aristotle was their dictator.' Cf. Whewell, 'On the Character of Commentators.' *History of the Inductive Sciences*, vol. I., bk. iv., ch. ii.

l. 30. the old man's faggot, see Æsop's *Fables*, 52. It is impossible to break sticks when they are tied in a large bundle, but each can be broken separately if taken out of the bundle. So the strength of a science lies 'in the bond,' i.e., in the consistency of each part with every other.

l. 34. axiom, proposition.

Page 30, l. 4. They break up, etc., they never get a comprehensive view of a subject. The remark about Seneca is from the Roman rhetorician Quintilian.

l. 6. fair, large.

l. 8. watch-candle, a small light kept burning in a room at night. Science should take a comprehensive view of the whole extent of a subject, such as a brilliant light gives us of a large room.

l. 12. cavillation, quibble: captious objection.

l. 14. as in the former resemblance, to take the comparison which we took above, l. 6. In *The Interpretation of Nature*, when he is condemning the science of his day, Bacon repeats the comparison which occurs below. "The strange fiction of the poets of the transformation of Scylla seemeth to be a lively emblem of this philosophy and knowledge: a fair woman upwards in the parts of show, but when you come to the parts of use and generation, Barking Monsters; for no better are the endless distorted questions, which ever have been, and of necessity must be, the end and womb of such knowledge." It must always be borne in mind that, futile as the speculations of the Schoolmen appear in the light of modern science, still we have to thank them for maintaining an intellectual activity through ages in which all but themselves were sunk in ignorance.

l. 20. generalities, generalizations.

l. 21. proportionable, comprehensive enough.

l. 23. instead of a fruitful, etc., the student should notice the stress which Bacon lays on the proposition, that all study is worthless, which is not productive of benefits to mankind.

l. 24. barking, loud. It is mere noise.

l. 25. quality, kind.

l. 28. they are all out of their way which never meet, people who never agree must, it is thought, all be in error.

l. 29. digladiation, obstinate fighting.

Page 31, l. 3. with dark keeping, with being kept in the dark—"shut up in the cells of a few authors," p. 29, l. 10. He alludes to the effect of darkness on the temper of animals.

l. 5. to leave the oracle, etc., as for instance in the discussion of such subjects as I have alluded to on p. 29, l. 23.

l. 7. the oracles of God's works, called "the book of God's works," p. 9, l. 12.

l. 9. unequal, uneven. Instead of deriving their ideas of things from a direct study of things themselves, they contented themselves with their own erroneous ideas of things. The idea which a prejudiced mind forms of a thing no more resembles the reality, than does an image reflected in a mirror with a rough or broken surface.

l. 13. of all the rest, this is a confusion of two expressions, "Foulest of all," and "Fouler than all the rest."

l. 14. the essential form, the Latin tr. has 'the very nature and life of knowledge.' The words essence and form signify the qualities which make a thing what it is.

l. 15. for the truth, i.e., the truth is to reality as the reflection is to the object reflected. We have attained to truth when our subjective ideas about things and their relations correspond exactly to the things themselves and their objective relations.

l. 21. to proceed of, we should say *from*.

l. 23. the verse, quoted from Horace, Ep. 1. 8. 69.

l. 27. as we see it in fame, as we see in the case of rumours.

l. 32. fiction and belief, the wish to deceive, and the tendency to be imposed upon.

l. 36. speak, say. matter of art and opinion, see p. 32, l. 32.

Page 32, l. 6. they had a passage, they were believed. On this subject, see Gibbon, ch. 28.

l. 9. divine poesies, religious fictions. It was thought unwiso to shake any of the foundations of religious belief.

l. 10. they, for the construction of. p. 2, l. 17.

l. 12. Antichrist, the spirit of evil; literally, the opponent of Christ. When predicting the signs of the approaching destruc-

tion of Jerusalem, Christ said, "There shall arise false Christs, and false prophets, and shall show great signs and wonders; insomuch that, if it were possible, they shall deceive the very elect." *Matt.* xxv. 24. St. Paul, forestalling the defections from the purity of the Christian faith, says, "Then shall that wicked be revealed, whom the Lord shall consume. . . . Even him, whose coming is after the working of Satan, with all power and signs and lying wonders." *2 Thessa.* ii. 8.

1. 16. Plinius was a Roman writer on Natural History, A.D. 23-79.

Cardanus (1501-1576), a physician of Milan, who wrote on Natural History, Medicine, and Astrology.

Albertus also wrote on Natural History. He was Bishop of Ratisbon, and on account of his learning was called 'The Great.' He was born A.D. 1193.

1. 17. the Arabians, see Gibbon, ch. 52, and Whewell's *History of the Inductive Sciences*, bk. iv., ch. 2. They became acquainted with the philosophy and science of the Greeks in the eighth century after Christ. It was through them that the Schoolmen became acquainted with the physical and metaphysical works of Aristotle: and their commentaries on the works of Aristotle, especially those of Ibn-Raschid, known in Europe as Averroes, had a considerable influence on the Scholastic philosophies. In philosophy, however, the Arabians confined themselves to explaining and developing the doctrines of Aristotle: it was in the sphere of science that they displayed originality. To the science of medicine especially, and also to the sciences of chemistry and algebra, they made considerable contributions.

1. 18. untried, unverified.

1. 22, exquisite, p. 26, l. 14.

1. 26. worthy the recording, this record of extraordinary narrations, which the author had heard, is not really by Aristotle. With this passage cf. 2, i. 3.

1. 31. to the memory of man, i.e., to posterity.

1. 35. which have had, etc., which are rather fanciful than rational. Literally, which have corresponded more closely, and been more nearly allied, to imagination than to reason. The Latin translation has 'which rest more upon imagination and faith than upon reason and proofs.' For natural magic and alchemy, see Bk. 2, p. 51.

Page 33, l. 2. astrology. The so-called science of Astrology came originally from the Chaldeans. The chief power which astrologers claimed was that of prediction. It was thought that the heavenly bodies influenced the course of natural phenomena: and that each of the stars had a different influence

according to its composition. Jupiter and Venus were compounded of warm and moist, and their influence was good, since heat and moisture are creative elements. On the other hand, the influence of Mars and Mercury was bad, since the one was dry, and the other was changeable. It was thought, moreover, that each of the signs of the zodiac presides over a special part of the body: and that a child's fortune in life could be predicted from the sign of the zodiac which rose at its birth. It was thought also that an undertaking would prosper according to the season in which it was undertaken. This last belief was held by Bacon—"We must not," he says, "altogether reject the choice of times, though we should place less reliance on it than on predictions. For we see that in sowing, and planting, and grafting, an observation of the age of the moon is a thing not altogether to be despised." Bacon rejected the grosser follies of Astrology. "Astrology," he says, "is so full of superstition, that we can scarcely find anything sound in it"—but he could not shake off the belief in it altogether. He says that it may enable us to predict not only natural phenomena, such as frosts, floods, earthquakes, etc., but wars, seditions, schisms, transmigrations of peoples, and, in short, all commotions or great revolutions of things, natural as well as civil. See Fowler's *Introductio* to *Nov. Org.* p. 26; and Whewell's *History of the Inductive Sciences*, vol. I., bk. iv., ch. 3. *Alchemy* is the Arabic *Alkimia*. *Al* is the Arabic article. *Kimia* is the late Greek word *chemeia*, which is perhaps a corruption of *chumeia*, a mixture, or fusion. The form *chumeia* justifies the spellings alchymy and chymistry.

1. 5. concatenation, connection.

1. 6. to reduce is used in its literal sense, and is equivalent to 'to bring back.' Cf. 'induceth,' Bk. 2, p. 43. In the *De Aug.* Bacon says "that the proper function of natural magic is to apply the knowledge of hidden causes to the production of wonderful results." See below, Bk. 2, p. 38. For the ground of Bacon's objections to the ordinary magic, see Bk. 2, p. 51. pretendeth, claims, professes.

1. 9. in mixtures of nature, in substances as they exist in nature. The order is, 'which are incorporate, i.e., incorporated, in mixtures of nature.' He explains this in the *De Aug.* thus: "Alchemy professes to extract and eliminate the heterogeneous elements which are latent in substances, as they exist in nature, and to purify bodies which are impure, to set free those which are enshained, and to perfect those which are incomplete," i.e., Alchemy was engaged in the refining and transmuting of metals. See Bk. 2, p. 51, for Bacon's opinion as to the way in which transmutation can really be effected, and the futility of the means by which the alchemists sought to effect it.

1. 10. derivations and processions, the devices and the

methods. Mr. Wright points out that the words mean literally, 'the subsidiary channels leading to those ends and the modes in which they have been followed.' Cf. Bk. 2, p. 51: "In their propositions the description of the means is ever more monstrous than the pretence or end."

1. 14. enigmatical writings, in the corresponding passage in the *De Aug.* Bacon says that alchemy is not taught in a straightforward way, but is artificially fenced round with obscurities; cf. the *Filum Labyrinthi*, Ellis and Spedding's edn., vol. iii., p. 496. The alchemists published their more important discoveries in *enigmatical writings*, i.e., in writings which the uninitiated could not understand. The alleged reason for this proceeding was 'for the avoiding of abuse in the exolnded, and the strengthening of affection in the admitted,' i.e., to prevent this knowledge thus reserved from becoming known to and being misused by incapable persons, and to encourage those, to whom it was committed, to take more interest in it, by making them feel that they were entrusted with a valuable treasure. This, however, says Bacon, though the alleged reason, was not the real one. They wrote enigmatically to hide their ignorance and fraud; for that, which they published enigmatically, was no less worthless and false, than that which they published openly. Mr. Nichol says "that the interval between the twelfth and sixteenth centuries is studded with books of secrets." The explanation of this, he says, is that some writers were afraid of being punished for unhallowed dealing in the black arts, others were anxious to gain credit for the possession of superhuman knowledge. The student will find some interesting information on this point in Vaughan's *Hours with the Mystics*.

referring themselves to auricular traditions, this was another device of the alchemists, similar to that of 'enigmatical writing.' The pretext and real reason for the two were the same. They pretended that some of their discoveries were so important, that they were not even published enigmatically, but were reserved for selected auditors. The words *auricular tradition* mean 'teaching by word of mouth' (literally, 'delivery, i.e., teaching, to the ears') as opposed to books. *Referring themselves to*, having recourse to.

1. 15. to save the credit of impostures, to induce people still to believe in their impostures.

1. 28. dictators, p. 29, l. 9.

1. 29. stand, maintain their position, be accepted without question.

consuls, magistrates whose power was not absolute, but who voted in the Senate. The Consulship dates from the expulsion of the last king of Rome, a.c. 510. Ellis prints *counsels*

from the original edition. He supposes that Bacon wrote *counsellor*. This conjecture is supported by the Latin translation — 'Credulity has invested certain authors with a dictatorial power of giving orders, instead of the senatorial power of giving counsel.'

l. 31. at a stay, kept them from making progress. We should say *at a standstill*.

l. 33. comes shortest, accomplishes least.

l. 35. leaseth, loseth.

l. 36. artillery, the art of constructing engines for the discharge of missile weapons. The word now means 'cannon.'

Page 34, l. 1. grossly, unskillfully.

l. 3. Democritus, born about B.C. 460, a leader of the Atomistic school of philosophy in Greece. Bacon thought more highly of him than of any of the Greek philosophers, because he devoted himself more to the study of nature, and less to the elaboration of logical forms.

Hippocrates, B.C. 460, a well-known Greek physician, and writer on medicine.

l. 4. Euclides, the geometrician. He lived in the fourth century B.C., but the exact date of his birth is unknown.

Archimedes, B.C. 287, a great astronomer, and discoverer in mathematics, both pure and applied. He was a native of Syracuse, and lost his life in the storming of the city by the Romans, B.C. 212. It is told of him that, during the siege, he burned the enemies' ships in the harbour by reflections from a mirror.

l. 5. imbedded, corrupted. In the Latin translation it is—'having lost much of their original splendour.'

l. 6. many wits and industries, the labour of many minds.

l. 7. in one, to the same object.

l. 9. whom ... illustrated; in spite of the time which they have spent upon him, they have rather distorted than illustrated his works. This is a parenthetical remark. The word *For*, which follows, continues the sense from *some one*.

l. 12. exempted from liberty of examination, i.e. accepted on authority: as the doctrines of Aristotle were by the Schoolmen. Bacon means that time is wasted, if spent in making endless comments on one author. When we have learned all that an author has to say, we should leave him, and go on to fresh studies. Cf. "To go beyond Aristotle by the light of Aristotle is to think that a borrowed light can increase the original light from whom it is taken."—Bacon, *On the Interpretation of Nature*.

l. 14. the position, the maxim, or rule.

1. 23. time which is the author of authors, of, "Truth is the daughter of time."—*Nov. Org.*, Bk. 1. Aph. 84, cf. p. 34, l. 11.

1. 24. to discover, to disclose.

1. 26. peccant humours, unhealthy states. Literally the words signify 'morbid juices' in the body.

1. 28. intrinsic, used in its literal sense of 'internal,' 'hidden from sight.'

1. 29. traducement, see on p. 19, l. 2.

Pages 34-40. *Having considered the grosser blemishes which disfigure and bring discredit upon learning, Bacon now proceeds to consider its more superficial defects. Of these he enumerates eleven—*

(i.) Men are too ready to accept ideas and beliefs, either because they are old, or because they are novel.

(ii.) It is generally thought that everything that is to be discovered must have been discovered long ago. Hence ensues a want of enterprise in science.

(iii.) It is commonly thought that, by a kind of 'natural selection,' those doctrines, which have survived to the present time, must be the soundest. In reality, the opposite of this is true. In the river of time the weightiest doctrines sink first.

(iv.) Arts and sciences have been formulated before the necessary data were obtained. Thus a false air of completeness has been given to knowledge.

(v.) The results of the different sciences have not been compared and co-ordinated. Hence individual sciences have not progressed as they might have done, because deprived of the light which other sciences might have thrown upon them.

(vi.) Students have placed such confidence in their own faculties that they have ventured to explain phenomena *a priori*, wanting the patience for a diligent study of nature.

(vii.) Men have come biassed to the study of nature, reading it in the light of preconceived ideas, and interpreting it in terms of their own philosophy.

(viii.) There has been a general impatience of difficulties. No satisfactory conclusions can be arrived at, when difficulties are passed over instead of being solved.

(ix.) Writers have asserted as proved things which are not proved: whereas they ought in their writings to distinguish those principles which are proved, from those which need further corroboration.

(x.) Students have neglected original research, and have been contented with simply editing the works of others.

(xi.) *Men have mistaken the end of knowledge. The student should woo knowledge as a spouse, the fruit of whose womb shall be benefits for mankind.*

Lastly, says Bacon, as I have not been sparing in my criticism of learning, I hope that due weight will be given to what I shall urge in its favour.

l. 31. affecting of, liking for.

l. 34. the father, Bacon refers to the Greek myth, according to which Kronos, i.e., time, devoured his children as soon as they were born. The myth expressed the passage of time, which cannot be recalled. Bacon says that the children are imitating the father; the old days wishing to destroy the later, and the later to destroy the older.

Page 35, l. 1. while antiquity, etc. Conservatives hate all changes: radicals insist on destroying, instead of merely reforming, what is old.

l. 3. surely, etc. A man, says Bacon, should dwell upon what has been already discovered, only until he has hit upon the path of further discoveries, which he must then follow. Cf. Essay xxiv.

l. 9. when the discovery is well taken, when he is certain that he has discovered it.

l. 11. old times, etc. Elsewhere Bacon says "the present time is the real antiquity, for the world has now grown old. And, indeed, as we expect greater knowledge and riper judgment from an old man than from a youth, because of his wider experience, so it is natural to expect far greater things from our own age than from ancient times; for the world has now grown old, and has been enriched with countless experiments and observations." —*Nouv. Org.* l. 84. Ellis quotes the same idea from a dialogue by the Italian Giordano Bruno, who was contemporary with Bacon. Similar reflexions, he says, occur in the writings of several of the scientific reformers. He also quotes from 2 *Bedras*, xiv. 10, "The world has lost its youth, and the times begin to grow old."

l. 15. induced, used in its literal sense of 'brought on.'

l. 19. Lucretian, the remark is really Seneca's. It is a satire on the popular mythology.

l. 22. septuagenary, too old to beget children: literally, seventy years old. the Papian law, the *Lex Papia Poppaea*, which was passed in the reign of Augustus, did not actually forbid old men to marry. Its object was to induce all men, who had not reached a certain age, to marry, by granting them political privileges.

.. 24. doubt, fear. past children and generation, past producing children, i.e., new discoveries.

1. 34. Columbus, writing in 1503 to Ferdinand and Isabella, says—"I was seven years at your court, and for seven years I was told that my plan was an absurdity: and now the very tailors ask leave to go to discover new countries."—E.

Page 36, l. 1. they, see on p. 2, l. 17. seem strange to our assent, i.e., we hesitate to assent to them. For the form demonstrate, cf. p. 16, l. 15.

1. 2. relation, lit. *carrying backward*, a technical term in law, denoting that effect is given to an action from a date preceding that on which it was performed. For example, letters of administration, though issued after a man's decease, take effect from the day of his death. In the case of simple truths, Bacon says, we appear to ourselves to have known them before the time at which we actually acquired them.

1. 3. speak, p. 31, l. 36.

1. 5. after variety and examination, i.e., when a number of different opinions have been propounded and examined. Cf. *The Interpretation of Nature*, "It is sensible to think that when men first enter into search and inquiry, according to the several frames and compositions of their understanding they light upon different conceits, and so all opinions and doubts are beaten over, and then men having made a taste of all wax weary of variety, and so reject the worst and hold themselves to the best." Then, after repeating the metaphor of the river, Bacon says: "The state of knowledge is ever a Democratic, and that prevaileth which is most agreeable to the senses and conceits of people."

1. 6. still, always.

1. 8. he were but like, etc., he would probably only light.

1. 10. for the multitude's sake, to please the multitude.

1. 11. to give passage to, to accept.

1. 15. blown up, filled with air. This image of a river is a false analogy which Bacon often employs. Cf. *Essay* liii.: "Fame is like a river that beareth up things light and swollen, and drowns things weighty and solid."

1. 17. Another error, etc. Cf. *The Interpretation of Nature*: "Men have used of a few observations upon any subject to make a solemn and formal art, by filling it up with discourse, accommodating it with some circumstances and directions to practice, and digesting it into method, whereby men grow satisfied and secure, as if no more inquiry were to be made of that matter." See Bk. 2, p. 100.

1. 18. peremptory, arbitrary.

1. 21. knit and shape, when the limbs are firmly set and the body is fully formed.

1. 24. methods, by a *method* Bacon means a formal treatise

professing to contain an exhaustive exposition of a subject, as opposed to the exposition of a subject in aphorisms, which are professedly imperfect, and valuable rather as suggestions than as dogmas. See *Nov. Org.*, 1, 86.

l. 25. illustrate, for this form of the participle, cf. *accumulate*, p. 16, l. 15, *demonstrate*, p. 36, l. 1, etc.

l. 31. cease, used transitively. For an explanation of this paragraph, see Bk. 2, pp. 81-3 and p. 40. Bacon frequently and wisely emphasizes the danger of excessive specialization. The world is so vast that we are obliged to study it in parts. The specialization of inquiry is only an application of the principle of what economists call the division of labour to intellectual industry. But there are no absolute divisions in nature corresponding to the divisions of the sciences. If, therefore, we study a subject in isolation, we must remember that our conclusions will have to be modified in virtue of the relation in which the subject really stands to the rest of nature. Each science, in other words, gives an imperfect view of its object. The *first philosophy* of Bacon is intended to correct the errors of specialized inquiry. It was to determine the principles common to all or many sciences, i.e., it was to show how nature works according to the same laws in different spheres: and secondly it was to answer certain general questions about nature which it is not the business of any special science to solve. Cf. "All knowledge forms one whole, because its subject-matter is one: for the universe in its length and breadth is so intimately knit together, that we cannot separate off portion from portion, and operation from operation, except by mental abstraction . . . Sciences are the result of that mental abstraction, which I have spoken of, being the logical record of this or that aspect of the whole subject-matter of knowledge. As they all belong to one and the same circle of objects, they are one and all connected together: as they are but aspects of things, they are severally incomplete in their relation to the things themselves, though complete in their own idea and for their own respective purposes; on both accounts they at once need and subserve each other. And further, the comprehension of the bearings of one science on another, and the use of each to each, and the location and limitation and adjustment and due appreciation of them all, one with another, this belongs, I conceive, to a sort of science distinct from all of them, and in some sense a science of sciences, which is my own conception of what is meant by philosophy, in the true sense of the word, and of a philosophical habit of mind." Cardinal Newman's *Idea of a University*, Discourse iii. § 4.

l. 32. for no perfect discovery, etc. In the Latin translation it is: "Extensive views can be obtained only from towers, or high places": and after the words "*to a higher science*," l. 36, the

Latin adds "as to a watch-tower." In *The Interpretation of Nature*, he says: "Sciences distinguished (i.e. individual sciences) have a dependence upon universal knowledge to be augmented and rectified by the superior light thereof"; and he gives a curious instance of this. "The opinion of Copernicus in Astronomy," he says, "which astronomy itself cannot correct because it is not repugnant to any of the appearances, yet natural philosophy doth correct." Cf. Bk. 2, p. 56. In his 278th Apophthegm Bacon says "Aristippus said that those that studied particular sciences and neglected philosophy were like Penelope's wooers, that made love to the waiting woman."

Page 37, l. 5. tumbled up and down in, have become confused among. See notes on p. 30, ll. 34 seqq., where this substance of this paragraph is repeated.

l. 6. intellectualists, Bacon coins the word to express those who contemplate only the creations of their own minds.

l. 9. in their own little worlds, in the microcosm of their own minds. They try to get at truth *a priori*, or, in Bacon's language, they wish to *anticipate*, instead of being content to *interpret* nature.

l. 11. the volume of God's works, p. 9, l. 12. In *The Interpretation of Nature* Bacon speaks of the felicity wherewith God hath blessed an humility of mind, such as rather laboureth to spell and so by degrees to read in the volumes of his creatures, than to solicit and urge and as it were to invocate a man's own spirit (mind) to divine and give oracles unto him. For the metaphor of *spelling*, cf. our expression 'The A B C of a subject.'

l. 13. invoke, call upon. We say *invoke*.

l. 14. to divine, to account for phenomena or to anticipate the future by a supernatural power. A diviner is a soothsayer.

l. 16. Another error, etc. With this section of Buckle's *History of Civilization*, vol. ii. p. 289, where, in illustrating the influence of theological prejudice upon writers of history, the author speaks of "a general law of the mind, by which those who have any favourite profession, are apt to exaggerate its capacity: to explain events by its maxims, and; as it were, to retract through its medium the occurrences of life."

l. 17. have used, have been accustomed.

l. 20. applied, studied.

l. 21. Plato, the same charge is brought against Plato in the *Novum Organum*, Bk. 1, Aph. 96, in which passage also, the same charges, as here, are made against Aristotle and Proclus. He is referring to Plato's fondness for the theologian's argument from design. Cf. Bk. 2, p. 45.

l. 22. Aristotle was fond of viewing natural phenomena as

exemplifications of his metaphysical distinctions. The seed and the tree for instance exemplify 'potentiality' and 'actuality.' See Bk. 2, p. 88. Aristotle ought to have kept distinct the *logical* question, What is the meaning of the terms actuality and potentiality? and the *physical* question, By what process is the tree, as a matter of fact, developed out of the seed? Cf. below Bk. 2, p. 32. It is only fair to Aristotle to remember that, as he lived before the age of physical science, his task was not so much to *explain* the world as to *conceive* it. The most elementary ideas of physics were not defined in his time. Besides, we can hardly blame Plato or Aristotle for not doing the work of a man of science. Plato, as a philosopher, was properly concerned to show that the universe is a rational system; and Aristotle, as a metaphysician, was properly concerned with the characteristics of *being* as such, and not with the discovery of the properties of any particular kind of *being*. Many of Aristotle's conceptions are still of the greatest value as applied even in science.

1. 23. the second school of Plato, i.e. the Neo-Platonists, the last representatives of ancient philosophy. The doctrines of Plato and the vaguer traditions of Pythagoreanism, coming into contact with the ideas of the East, produced the philosophy of Neo-Platonism, the chief characteristic of which is its mysticism. Proclus (A.D. 412-485) was born in Constantinople, but spent most of his life in Athens. He wrote commentaries on Plato's dialogues, that on the *Timæus* being especially well known. His own philosophical ideas are mainly contained in his treatise 'On the Platonic Theology.' Pythagoras first attempted to find in numbers the key to the explanation of the Universe. He exercised a profound influence on the mind of Plato. It was not therefore wonderful that this influence was transmitted to the Neo-Platonists. See Whewell's *History of the Inductive Sciences*, vol. 1, bk. iv. ch. 3. § 2.

1. 24. which had a kind of primogeniture with them, of which they were fondest. The Latin has 'which they used to fondle as if they had been their first-born children.'

1. 26. the alchemists. See Bk. 2, p. 50.

1. 27. Gilbertus, cf. *Nov. Org.*, l. 54. Bacon means to say that he tried to explain by magnetism phenomena which it would not account for. For instance, he explained the phenomena of gravitation as cases of magnetism. William Gilbert (1540-1603), Court Physician to Queen Elizabeth, and author of the celebrated treatise '*On the Magnet*,' was, according to Fowler, the real founder of the sciences of Electricity and Magnetism. Elsewhere Bacon praises him for his industry and method; though he justly censures him for endeavouring to build a universal philosophy upon so narrow a basis.—E. See also Whewell's *Philosophy of Discovery*, ch. xiv. § 7.

1. 31. pleasantly, wittily.

1. 32. Aristotle speaketh, similarly Carlyle says "The Universe makes no immediate objection to be conceived in any way." This section is quoted and illustrated by Cardinal Newman, *Idea of a University*, Discourse iv., § 4.

Page 38, l. 2. two ways of action, Cf. two sayings quoted by Xenophon, "Do not aim at ease, lest you meet with discomfort," and "The gods sell us all good things for labour."

1. 7. he shall end, he will certainly end. *Shall* properly connotes compulsion, and is often, therefore, used to denote what is inevitable.

1. 10. the manner of the tradition, the way of handing on or communicating knowledge. Cf. *The Interpretation of Nature*: "He that delivereth knowledge desireth to deliver it in such form as may be soonest believed, etc. ... Glory (*i.e.*, pride) maketh the author not to lay open his weakness." Cf. Bk. ii. pp. 98-9.

1. 11. magistral, after the fashion of a master, whose word is not to be disputed.

1. 12. peremptory, dogmatic: not brooking question or contradiction.

1. 15. disallowed, disapproved.

1. 17. Velleius, Bacon is referring to Cicero's treatise on the Nature of the Gods. The treatise is in the form of a discussion in which Velleius takes part. Authors, says Bacon, should avoid the two extremes of dogmatism and scepticism.

1. 20. Socrates his, in early times *his* was substituted by mistake for the 's of the genitive. The change occurred most frequently in the case of nouns ending in a sibilant, owing to the coincidence of sound. Abbott, *Sh. Gr.* § 217.

ironical doubting, the word 'irony' as applied to Socrates means 'self-depreciation.' Socrates wrote nothing, and established few positive conclusions. It was his custom to profess entire ignorance of a subject and to ask some one for an explanation of it. This explanation he then criticised, and by a process of cross-examination showed that the explanation which he had received was either insufficient or incorrect. His chief subject of discussion was the meaning of general names, specially those of moral philosophy. Socrates thus performed the essential service of showing men their ignorance, and putting them in the way of right reasoning. Our reasoning will never be of any value so long as we can attach no definite meaning to the terms which we employ.

1. 23. scope, aim. It is a Greek word signifying literally 'a mark to aim at.'

1. 29. commenter, we should say *commentator*.

1. 30. compounder, one who makes an analysis, or abstract, of a book.

1. 33. of all the rest, see note on p. 31, l. 13.

1. 34. furthest, ultimate.

1. 36. upon, out of: by reason of.

Page 39, l. 4. profession, means of livelihood.

1. 4. to give a true account, etc. Cf. *The Interpretation of Nature*: "The true end, scope, or office of knowledge I have set down to consist not in any plausible, delectable, reverend, or admired discourse, or any satisfactory arguments, but in effecting and working, and in discovery of particulars not revealed before for the better endowment and help of man's life."

1. 7. a tarasse, a terrace.

1. 9. a tower of state, a lofty tower.

1. 10. commanding, a commanding position is one which gives the holder of it any advantage.

1. 12. the glory of the Creator, because the more we know of nature, the more we admire the power and the wisdom of the Creator.

1. 13. estate, condition. straitly, closely. It is the same as *strictly*. Both words are from the Latin *stringere*, to draw tight. For the implied belief in astrology, see on p. 33, l. 2.

1. 23. Atalanta, the daughter of a king of Boeotia, who refused to marry any one who had not beaten her in a foot race. Milanion obtained her by a stratagem. He obtained from Venus some golden apples, which, when he was pressed in the race, he threw down, from time to time, before the maiden. She could not resist the temptation to stop and pick them up, and so lost the race. Similarly, the student who goes aside from the path of knowledge for the sake of lucre will make but slow progress.

1. 29. to converse upon the earth, i.e., to occupy itself with human affairs. Cf. "Socrates was the first to call down philosophy from heaven, to place it in cities, to introduce it even into men's homes, and to force it to inquire concerning life and morals, concerning things good and evil."—Cic. *Tusc.* v. 4. See on p. 38, l. 20.

1. 31. manners and policy, ethics and politics.

1. 33. both philosophies, i.e., both physics and moral and political philosophy.

Page 40, l. 1. a bond-woman, a female slave.

1. 5. peccant humours, see on p. 34, l. 28.

1. 6. proficience, progress. The quotation which follows is from *Proverbs*, xxvii. 6.

1. 15. a laudative, a panegyric.

1. 16. The Muses were the patron goddesses of art and science.

1. 17. *varnish*, literally 'an external polish': here equivalent to 'exaggeration.' Cf. "I will a round *unvarnish'd* tale deliver," —*Othello*, i. 3. 80.

Pages 40-47. Having now 'cleared the way' (p. 4, l. 23) by disposing of objections, Bacon proceeds to adduce evidence in favour of learning, both from the Scriptures and Ecclesiastical History, and from Secular History. We cannot talk of God's learning, since he possesses all knowledge without having acquired it; but we see that, in the creation of the world, he manifested wisdom as well as power: and while the works of power were completed in a moment, seven days were given to the disposition of created matter by divine wisdom.

Among the celestial beings, who stand next in rank to God, a higher place is given to the spirits of knowledge than to the spirits of power; and the day of rest and contemplation is more blessed than the days of labour. The work which God assigned to man in Eden was to be pursued for the sake of pleasure and observation; and the first acts of man in Paradise were manifestations of knowledge. The story of the first fratricide displays, in an allegory, the preference of God for a contemplative rather than an active life. The Scriptures mention with honour the inventors who lived before the flood; and the greatest punishment which God could inflict on sinful man, after the flood, was to stop the progress of knowledge. It is specially mentioned in the Scriptures that Moses, whom God chose to communicate the divine law to the Jews, was a learned man; and both from the writings of Moses, and from other parts of the holy books, we learn lessons in morals and science. Solomon preferred knowledge to all things, and God approved of his choice. Christ showed his wisdom before he showed his power; and the chosen apostles of Christianity were learned men.

Learning was held in esteem in the Early Church, and in the sixteenth century, at the same time that God reformed his church, he also gave fresh life to learning. The Church of Rome owes the deepest debt of gratitude to the learned order of Jesuits. Learning performs a double service to religion. The learned man alone can appreciate the power of God as manifested in nature; and learning enables a man to understand the Scriptures, and predisposes him to believe them.

1. 23. *platform*, pattern. Similarly in *Essay* xlix., Bacon talks of 'the platform of a garden.' The most perfect type of wisdom must be looked for in God.

1. 29. sapience, the Latin *sapientia*, wisdom.

1. 30. we see, etc., Bacon wishes to show from the Jewish account of the creation that God assigns to wisdom a preëminence over power. He distinguishes the creation of matter, which was at first formless (cf. *Genesis* i. 2, "and the earth was without form"), from the arrangement of the matter in the form of the world as we know it; and the preëminence of wisdom appears from this, that the mere creation of matter, which was an act of power, is clearly distinguished from the orderly distribution of the matter in the form of the world as we know it, which was an exercise of wisdom. The first 'carries the style of,' i.e., is described as, a manufacture, the second as a law or decree. If we look at the time which God allotted to the two, we shall find that the act of power may, for anything that appears to the contrary, have been performed in a moment, whereas six days were assigned to the work of wisdom. With this passage cf. Hooker, *Ecclesiastical Polity*, Bk. 1. 3.

The student must bear in mind that when it is said that matter was formless, it is only meant that it had not assumed its present orderly arrangement.

1. 32. expressed, manifested.

1. 33. subsistence, substance.

1. 35. for anything which appeareth, *sc.* to the contrary.

Page 41, l. 4. note, mark. By 'God made heaven and earth' is meant, 'God created matter': by 'the works following' Bacon means the orderly distribution of the matter. He is alluding to the form of words used in the Bible—'Let there be light,' 'Let there be a firmament,' etc.

1. 12. the celestial hierarchy, this work, in the genuineness of which no one probably now believes, exercised great influence on the medieval development of the doctrine of the nature and faculties of angels.—E. Dante, in his *Paradiso*, refers to the book, and believes Dionysius to be the author of it. Dionysius is said to have been converted by St. Paul, from whom he might naturally acquire information about the angels, because it is said in the Bible that St. Paul, during his life-time, was 'caught up into Paradise.' In place of 'that supposed Dionysius' Bacon says in the Latin translation that the book is 'published in the name of Dionysius,' i.e., is attributed to him.

1. 18. ministry, the words ministry and office mean service and duty. These angels are charged with the execution of God's orders. The student will remember that in Milton the angels are frequently addressed as 'thrones, dominations, virtues, principdoms, powers.' The curious student will find information on the scholastic views of the angels in Longfellow's notes to Dante's *Paradiso*, c. 28.

1. 21. forms, Observe that the word 'form' is applied both to angels and material objects. Bacon probably had in mind scholastic uses of the word. Thomas Aquinas uses the word, as Bacon does here, to express 'material objects'—'matter to which shape has been given,'—but he also says that there are separate and immaterial forms, as an instance of which he mentions the angels. incorporeal, incorporeal.

1. 26. in the distribution, etc., "And on the seventh day God ended his work which he had made, and he rested on the seventh day . . . and God blessed the seventh day and sanctified it."

1. 30. it is set down, it is written.

1. 35. reluctance, effort. The necessity of labour was imposed on man as a punishment after the fall.

1. 36. of consequences, consequently. For if we should say in. The words 'sweat of the brow' are suggested by the words of the curse pronounced by God upon Adam after his sin: 'In the sweat of thy face shalt thou eat bread,'—*Gen.* iii. 19.

Page 42, 1. 3. summary, most important. Observation and language are necessary to knowledge. With this passage, cf. 1. 3.

1. 5. induced, brought on. Cf. p. 35, 1. 15. touched, just mentioned.

1. 8. were not the originals, i.e., things were not constituted right or wrong simply by God ordering or forbidding them. This remark might seem to imply a discouragement of the study of Ethics, but we must not press his words too closely. In the first place, he is not expressing an opinion of his own, but interpreting a text of Scripture. Moreover, Bacon held that although the laws of morals are discoverable by reason, still they are to be inferred from the will of God as revealed in Scripture and manifested in nature.

1. 13. as the Scriptures, etc., in bk. 2, pp. 193-4. Bacon says that the words of Scripture bear not only the literal sense, but also a moral, and often a typical or allegorical sense.

1. 16. Abel and Cain, the two brothers Abel and Cain, sons of Adam, the one a shepherd and the other a tiller of the ground, both made offerings to God. That of Abel was accepted, and that of Cain rejected. In a fit of jealousy, Cain murdered his brother. After the word husbandman, Bacon adds in the Latin translation: 'one who is weary with labour, and whose eyes are bent upon the ground.'

1. 28. this confusion of tongues, "And the Lord said, Behold, the people is one, and they have all one language . . . and now nothing will be restrained from them which they have imagined

to do. Go to, let us go down, and confound their language, that they may not understand one another's speech."—*Gen. xi. 6*. The punishment was inflicted on men because they wished to build a tower which should reach to heaven.

l. 29. open, unrestricted. trade, on the analogy of the Latin "commercium," which had the general meaning of "intercourse," before it acquired the special meaning of "trade."

l. 30. imbarred, stopped.

l. 31. God's first pen, the writer of the first of the sacred books.

l. 33. seen in, p. 23, l. 23.

l. 34. which nation, i.e., learning flourished in Egypt earlier than almost any other country.

l. 35. Plato brings in, etc., "Thereupon one of the priests, who was of a very great age, said: O Solon, Solon, you Hellenes are but children, and there is never an old man who is a Hellenes. Solon in return asked him what he meant. I mean to say, he replied, that in mind you are all young: *there is no old opinion handed down among you by ancient tradition: nor any science which is hoary with age.*"—Plato's *Timæus*. Cf. *Nov. Org.*, l. 71.

Page 43, l. 3. you shall find, you cannot help finding. See on p. 33, l. 7. the prefiguration of Christ, Christian theologians find in the Jewish ritual a series of types or foreshadowings of the teaching of Christ, or of events in his life.

l. 4. difference, see on p. 4, l. 6. the people of God, viz., the Jews, who were distinguished from other nations as "God's chosen people." the impression, the enforcement of.

l. 8. a moral reduction of the ceremonies, i.e., a moral inference from the ceremonies. By "a natural reduction" is meant "an inference in physics."

l. 14. a position, a maxim. When a man is half good and half bad, the attractiveness of his good qualities blinds us to the danger of being infected by his vices.

l. 19. asperston, a sprinkling, i.e., an intermixture. See on p. 25, l. 17.

l. 26. penalleness, the fact that the earth is suspended. Milton talks of "the pendulous round earth."

l. 27. the finiteness, etc., because it is said that our Universe is suspended in empty space.

l. 28. touched, see p. 42, l. 5.

Page 44, l. 3. he takes knowledge of, he recognises.

l. 14. so forwards, so forth: so on.

l. 17. both in Solomon's petition, etc., "The Lord appeared to Solomon in a dream by night, and God said, Ask what I shall give thee. And Solomon said ... Give thy servant an understanding heart to judge thy people, that I may discern between good and bad ... And the speech pleased the Lord. ... And God said unto him ... Lo! I have given thee a wise and understanding heart."—*History of the Jewish Kings*, i. iii. 5.

l. 20. donative, a gift.

l. 21. parables, "And Solomon spake three thousand proverbs ... And he spake of trees from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall: he spake also of beasts and of fowl, and of creeping things, and of fishes."—*Ibid.* i. iv. 33.

l. 23. verdure, trees and vegetables.

l. 24. a rudiment, something undeveloped. Elsewhere Bacon calls rudiments '*participles*,' i.e. partakers of two kinds. He defines them as "things, the appearance of which is such, that they seem to be made up of two species or to be 'rudiments' between one species and another." According to Fowler, moss is incorrectly described as a rudiment. He mentions as instances of 'rudiments,' in the animal world, the order Dipnoi, which have affinities to fishes in one set of organs, and to amphibia in another.

l. 28. of service and attendance, i.e., of servants to wait upon him.

l. 30. inquisition, cf. p. 5, l. 29. The inquirer trying to discover the secrets of nature, is represented as playing a game of hide and seek with the author of nature.

l. 36. the great commandment of wits and means, i.e., considering that a king can command the assistance of so many men's brains, and has such large resources at his disposal. The student should observe the truth, which Bacon so often insists on, that Nature does not reveal her secrets spontaneously. He who would learn the truth must patiently 'interrogate nature,' and cross-examine her, as a lawyer does a witness.

Page 45, l. 4. for our Saviour, etc., when Christ was only twelve years old, his parents "found him in the temple, sitting in the midst of the doctors, both hearing them and asking them questions. And all that heard him were astonished at his understanding and answers."—*Luke*, ii. 43.

l. 7. to subdue nature, a miracle is a suspension of the ordinary course of nature by God.

l. 8. the Holy Spirit, the third person of the Christian Trinity. The disciples of Christ are said to have been visited by the Spirit, and his presence was revealed to them by their suddenly

being endowed with the power of speaking the languages of all those to whom they wished to preach Christianity.

l. 12. for the plantation of the faith, i.e., to disseminate the doctrines of Christianity.

l. 13. altogether unlearned, the immediate followers of Christ and first preachers of Christianity possessed no knowledge except such as was miraculously given them by God, 'by inspiration.' They belonged, mostly, to the lowest classes: some of them being common fishermen. Their natural ignorance, says Bacon, displayed all the more clearly that they were under the direct influence, 'immediate working,' of God.

l. 16. counsel, intention.

l. 17. in the next vicissitude and succession, in the times immediately following.

l. 20. who was the only learned, i.e., who alone, among the Apostles, was learned. Bacon's argument is that learning must be a good thing, otherwise God would not have employed it in the service of religion.

l. 21. had his pen most used in, wrote the greater part of. the New Testament, the Christian, as opposed to the Jewish, Scriptures.

l. 24. fathers, the word is used of those priests of the church whose writings have been accepted as authoritative on points of doctrine.

l. 26. interdicted, forbidden. The Emperor Julian, who wished to destroy Christianity and to restore the early religion of Rome, issued an edict, A.D. 363, *forbidding Christian professors to teach.* This *indirectly* forbade Christians to learn, since they could not conscientiously attend the schools of Pagan teachers.—Gibbon, oh. xxi.

l. 31. emulation and jealousy, i.e., his zeal for Christianity, and his hatred of anything that might prove a dangerous rival to it. See below, p. 50.

l. 32. the opinion, the reputation.

l. 34. humour, caprice.

l. 35. in that, because. Gregory the First, commonly called 'the Great,' was Pope from A.D. 590-604. "It is commonly believed that Pope Gregory the First attacked the temples and mutilated the statues of the city: that by the command of the barbarian the Palatine Library was reduced to ashes, and that the history of Livy was the peculiar mark of his absurd and mischievous fanaticism. The writings of Gregory himself reveal his implacable aversion to the monuments of classic genius, and he points his severest censure against the profane learning of a bishop who studied the Latin poets, and pronounced with the

same voice the praises of Jupiter and those of Christ. But the evidence of his destructive rage is doubtful and recent."—Gibbon, ch. xlv.

Page 46, l. 2. the Scythians, the Scythians in Europe inhabited the tract of country stretching from the Danube to the Crimea and Mount Caucasus. They appeared on the boundaries of the Roman Empire, A.D. 375. But the name is vaguely applied to a great number of barbarian tribes.

l. 3. the Saracens, this name is applied to the tribes who dwell between Mecca and the Euphrates. In the seventh century they conquered Persia, Syria, and Africa; and in the eighth century they conquered Spain.

l. 4. thereof, viz., of the church.

l. 13. a renovation and new spring, etc. Bacon alludes to the Renaissance, or Revival of Learning. As a matter of fact the Reformation was due to the spirit of inquiry generated, and the new ideas which were everywhere disseminated by the New Learning.

l. 14. partly in themselves, etc., i.e., partly by what they did themselves, and partly by what their example induced others to do. Cf. p. 19, l. 25.

l. 16. quickened, given life to.

l. 18. reparation, restoration. Bacon means that the Jesuits have increased the power of the Papacy. the Roman see, i.e., the Papacy. "A see" is the district over which the authority of a Bishop extends. The see of the Pope, of course, includes all parts of the world in which there are any Catholics.

l. 24. the Psalms, a book of hymns forming part of the Jewish Scriptures.

l. 29. construe of, form an opinion of. Our admiration of God's power will be greater in proportion as we go beneath the surface of things, and penetrate into the hidden workings of nature.

l. 34. if we will, if we wish to be.

l. 36. the creatures, p. 29, l. 16. expressing, showing. In Bk. 2, pp. 35-6, Bacon says that natural theology can prove the existence, power, providence, and wisdom of God, but that his nature can only be learnt from the Bible, the contents of which are to be taken on faith.

Page 47, l. 1. not only opening, etc., i.e., study strengthens the intellectual faculties, and so helps us to understand the Scriptures; and it predisposes us to belief by the evidence which it brings to light of God's power.

l. 6. signed, stamped.

Pages 47-61. Passing from the Bible and Ecclesiastical history, Bacon now proceeds to give certain proofs of the value of learning drawn from history. Innumerable proofs might be given; it is impossible here to do more than select a few of them.

Of all the honours which men have bestowed upon their more famous fellow-men, the highest honour of all, that of deification, has been conferred on those who by their labours and inventions have added to the stock of human comforts.

Learning, like an Orpheus' lute, tames the evil passions, and renders social life possible.

No societies have been so prosperous as those which have been directed by governors learned in the principles of morality and true statesmanship. This fact is illustrated by the history of the Roman people under the learned successors of Domitian—Nerva, who showed that the maintenance of the authority of the law was not incompatible with the liberty of the subject; Trajan, who combined patronage of learning with virtue and good government; the inquiring Adrian, who gave peace to the Church, and traversed the Empire, redressing wrongs and improving the condition of his people; the pure and studious Antoninus, who was almost a Christian; the philosophic Marcus Aurelius, that perfect ruler in whom envy itself could detect no fault. In modern times, to say nothing of James himself, Queen Elizabeth was at the same time the most learned of women and the most successful of sovereigns.

Nor is learning less conducive to success in war, than to success in the arts of peace. Alexander was equally great as a soldier and as a philosopher. He understood the true value of worldly goods, the weaknesses of man, the worthlessness of flattery, and the uses and abuses of argument. He was skilled in the use of rhetoric. He was a keen judge of character, and could truly estimate the resources which ambition has to rely upon. Julius Cæsar was a great general, but he was also a great scholar. He was a good writer, and a master of style. He reformed the Calendar. He was not afraid to enter the lists against the most learned disputants. Though a sayor of wise things himself, he was not above studying the wisdom of others. By a single word he suppressed a mutiny; he knew how to relieve himself from an embarrassing situation by a happy speech, and in a pithy saying he could give expression to the most opposite feelings. He was conscious of his superiority, and knew how to turn this consciousness to his own advantage. Xenophon the philosopher also performed one of the greatest military feats that history records.

l. 9. it is so large, etc., *i.e.*, the evidence afforded by history is so vast.

l. 10. to use choice, etc., *i.e.*, it is more convenient to select a few than to include them all.

l. 13. human honour, honour which man could confer upon man.

l. 15. as the forbidden fruit, referring to the story of Adam's temptation. Cf.—

“Of man's first disobedience and the fruit
Of that forbidden tree, whose mortal taste
Brought death into the world, and all our woes,” etc.

Paradise Lost, l. 1.

Christians are not allowed to worship any man as God.

l. 20. as it was used among, as it was the custom to give it to the Roman Emperors. Divine honours were regularly decreed to the Emperors, generally during their lifetime, by the Senate.

l. 21. by an inward assent, *i.e.*, voluntarily, or by tacit consent. The honour was all the greater, when it was granted by the people spontaneously.

l. 22. a degree or middle term, *i.e.*, there were three degrees of honour—deification was the highest, and honour granted during a man's lifetime, or human honour, the lowest; between these two extremes came the honour of being made a demi-god—which Bacon calls ‘*honour heroic*.’

l. 23. extirpers, extirpators.

l. 27. fathers of the people, a title given at Rome to those who delivered their country in times of danger. Cicero, after defeating the conspiracy of Catiline, was styled ‘the father of his country.’ This is an instance of ‘*human honour*.’

eminent persons in civil merit, men who had rendered conspicuous services to their country.

l. 28. worthies, *i.e.*, heroes, or demi-gods.

l. 29. Hercules, p. 23, l. 17. He freed Greece from a number of monsters which infested the country, and destroyed both life and property. Theseus, Minos, and Romulus were the legendary founders of the Athenian, Cretan, and Roman states.

l. 33. Ceres, Bacchus, Mercury, and Apollo were the givers of corn, wine, speech, and music.

Page 48, l. 2. a latitude of ground where, the extent of ground on which.

l. 6. Divine Presence, referring to a story of God visiting the Jewish prophet Elijah, and making his presence known ‘by a alight breath of air.’

l. 9. which grow from man to man, which men inflict on one another before they are softened and civilized by learning.

l. 11. lively, vividly. It is properly an adjective. When the adjective already ends in *ly* it is often used as an adverb too.

l. 12. Orpheus, the wonderful musician who, by the magic of his lyre, is said to have made even the trees of the forest follow him.

l. 14. game, playfulness.

l. 15. airs and accords, tunes and harmonies. We still use the word 'air' in this sense.

l. 21. sweetly touched with, i.e., made pleasant to the ear by. The metaphor is from 'touching' the strings of a harp. Eloquence will charm man, as music charmed the brutes.

l. 23. instruments, viz., eloquence and persuasion of books, etc., but the metaphor from music is still kept up; for we talk of a musical '*instrument*,' to express anything from which musical sounds are produced.

l. 24. that, see note on p. 10, l. 1.

l. 28. popular estates, republics. With this paragraph, cf. p. 11.

l. 30. Then should people, etc. This saying is taken from Plato's *Republic*. See p. 20, l. 33.

l. 35. customs, the Latin translation adds 'like other men.' illuminate, see on p. 16, l. 15.

Page 49, l. 1. refrain them, we now use the word 'refrain' intransitively.

l. 2. peremptory, irremediable: or the word may be used in its literal sense of *destructive*. With this passage, cf. *Deady* xx. "It was truly said, *The dead are the best councillors*: books will speak plain, when councillors blanch (are afraid). Therefore it is good to be conversant in them: specially the books of such, as themselves have been actors upon the stage."

l. 6. men of experience, mere empirics. Cf. "which are only men of practice," p. 11, l. 26.

l. 8. near hand, an adverbial phrase. It means near, or close at hand.

l. 9. agility, we still speak of a 'quick,' i.e., a ready wit. to ward, we say to ward off: i.e., to keep off: to parry.

l. 12. the age which passed, etc., from A.D. 96 to 180.

l. 16. for temporal respects, for temporal considerations. The Latin translation has, 'If we look only to temporal prosperity.' '*Temporal*' is opposed to *spiritual*.

l. 17. which was a model of the world, which may be taken to represent the whole world, since it nearly included it.

- l. 21. which came to pass, i.e., which dream was fulfilled.
- l. 24. vulgar, known to all.
- l. 25. infolded, condensed : literally, 'wrapped up,' so as to occupy little space.
- l. 27. and Apollo, etc., this line of Horace has passed into a proverb meaning that 'every one relaxes occasionally.' Cf. 'Ease and relaxation are profitable to all studies. The mind is like a bow, the stronger by being unbent.' (Ben Jonson.)
- l. 28. naked, cf. our use of the word 'bare,' in the phrases a 'bare assertion,' and 'barely to mention,' i.e., without any comment.
- l. 30. a glance, a single remark. A glance is a rapid look.
- l. 36. proceeding upon, caused by.

Page 50, l. 4. O Phœbus, etc. Nerva asks his son, under the name of Phœbus, to avenge his father's wrongs. The line is taken from Homer, who describes the priest Chryses as calling upon his patron god Apollo to avenge the wrong which he had suffered in the abduction of his daughter by Agamemnon.

- l. 5. was for his person not learned, was not himself a learned man.
- l. 7. in the name of a prophet, i.e., because he is a prophet : out of respect for his sacred character. Trajan did honour to learned men out of respect for their learning, and therefore should be honoured equally with the learned, on the principle that he that receiveth a prophet, etc.
- l. 13. who were noted, In the Latin Bacon adds that this was the more remarkable because he was a warlike emperor.
- l. 17. legend, used as an adj., *legendary*. Gregorius Magnus, p. 45, l. 31.
- l. 19. the love, we should say 'his love.'
- l. 22. out of hell, the Catholic Church excluded non-Christians from heaven. a caveat, a warning. For the legend, cf. Dante, *Purg.* 10. 73, *Paradiso*, 20. 106.
- l. 24. the persecutions, see Gibbon, ch. xvi. Pliny was governor of Bithynia, and asked Trajan's advice as to how the Christians were to be dealt with.
- l. 26. advanced, promoted.
- l. 27. curious, inquiring. This word now means either 'inquisitive' or 'strange.' Gibbon, ch. 1, says of Hadrian, "that his life was almost a perpetual journey : and as he possessed the various talents of the soldier, the statesman, and the scholar, he gratified his curiosity in the discharge of his duty . . . nor was there a province of the empire which, in the course of his reign, was not honoured with the presence of the monarch."

l. 28. it was noted for an error, etc. In the eleventh Essay, Bacon gives the following piece of advice to men in great place—
 "Preserve the rights of inferior places: and think it more honour to direct in chief than to be busy in all." to comprehend, to take into his own hands.

l. 32. Philip of Macedon, the father of Alexander the Great.

over-rule and put down, to contradict and silence: to prove him to be in the wrong. Cf. *The Interpretation of Nature*. "Sir (saith a man of art to Philip, king of Macedon, when he controlled him in his faculty), *God forbid your fortune should be such as to know these things better than I*. In taxing his ignorance in his art he represented to him the perpetual greatness of his fortune, leaving him no vacant time for so mean a skill." For the expression *would needs*, cf. p. 24, l. 6.

Page 51, l. 1. an inducement to, a means of furthering.

l. 4. matched with Apollonius, placed side by side with that of Apollonius. Apollonius of Tyana in Cappadocia, who lived in the first century A.D., was a diviner and a reputed worker of miracles. It is said that it was not Hadrian, but Alexander Severus, who matched the picture of Christ with that of Apollonius, and who actually built a temple in honour of Christ. Hadrian, however, had a feeling of respect both for Christ and for Apollonius.—E.

l. 6. it served, the construction is irregular. 'It' means the admiration of the Emperor for Christ.

l. 8. civil, opposed to ecclesiastical.

l. 10. weal, welfare.

l. 10. re-edifying, used in its literal sense of 're-building'. The verb 'to edify' now means 'to instruct,' or 'to improve a man's character.'

l. 21. passages, roads. policying, regulating.

l. 22. commonalties, corporations.

l. 23. granting new franchises and incorporations, investing new cities with municipal independence.

l. 27. subtle wit of a schoolman, see p. 29.

l. 29. untaxed, uncensured. Cymini sector, cf. *Essay* I. "If his wit be not apt to distinguish, or find differences, let him study the Schoolmen: for they are cymini sectores." We now talk of 'hair-splitting.'

l. 31. settled spirit, determination.

l. 33. which ... entire, observe the irregular construction. The subject properly is *mind*, but the sentence beginning 'but having' is applicable only to Antoninus.

l. 38. all, for any: a Latinism.

Page 52, l. 1. present and entire, ready and undistracted.

l. 3. as Agrippa said, the Christian Paul was brought for trial before the Roman governor Agrippa, who, on hearing the prisoner's defence, said to him, "Almost thou persuadest me to be a Christian."

l. 7. The first divine brothers, for an explanation of 'divine,' see on p. 47, l. 20. It was customary for a Roman emperor to associate some colleague with him in the government, who received the title of Cæsar. Marcus Aurelius took for his colleague L. Commodus Verus, who was, like himself, an adopted son of Antoninus Pius. This was the first time that the Emperor and the Cæsar had been brothers. Bacon's estimate of the virtues of the Antonines is a true one: and his opinion of the prosperity of the Roman world during the period under discussion is confirmed by Gibbon, who says, "If a man were called to fix the period in the history of the world, during which the condition of the human race was most happy and prosperous, he would, without hesitation, name that which elapsed from the death of Domitian to the accession of Commodus. The vast extent of the Roman world was governed by absolute power, under the guidance of virtue and wisdom. The labours of these monarchs were overpaid . . . by the exquisite delight of beholding the general happiness of which they were the authors."—Ch. 3.

l. 15. Julianus, p. 45, l. 28. For an account of his book, see Gibbon, ch. 24.

l. 16. pasquin, a satire. The word originally signified a certain post in Rome to which libels and defamatory verses were affixed.—W.

l. 19. nether, lower.

l. 20. Marcus Philosophus, Marcus Aurelius, named the philosopher. He was a strict disciple of the Stoic School. He has left a volume of Meditations, for an account of which see Matthew Arnold's *Essays in Criticism*.

l. 21. gravelled, puzzled. out of countenance, taken back. Silenus was a drunken companion of the god of wine.

l. 23. he gave a glance at, he hinted at, cf. p. 49, l. 30. his wife, see on p. 24, l. 11.

l. 24. continued with, succeeding to.

l. 30. Let the name, etc. The name Augustus was originally a personal title, assumed by the first emperor; but it was afterwards adopted as an official title by all his successors. The Senate wished to commemorate the virtues of Antoninus by making his name one of the permanent imperial titles.

l. 34. addition, title. style, official designation.

l. 35. the Church, it appears on the contrary that the Christians

suffered somewhat severely under the reign of Marcus. See Gibbon, ch. 16.

Page 53, l. 1. *tabla*, picture. The Latin word 'tabula' is used in this sense. Cf. *tablet*, in l. 3. With painted forth, cf. painted out, p. 13, l. 27.

l. 3. *volume*, size. The word means properly 'any thing rolled up': hence it signifies properly 'a book,' since books were at first scrolls of parchment, rolled round a stick.

l. 7. Plutarch, a Greek writer born A.D. 40, wrote biographies in pairs: he selected some eminent Greek and Roman, gave an account of each, and ended with a comparison of the two.

l. 9. *endued with learning*, for the extent of the learning of women in the sixteenth century, see Macaulay's *Essay on Bacon*.

l. 12. *humanity*, secular learning.

l. 18. *the season*, the time.

l. 19. *regiment*, government. of, we should now say 'on.'

l. 22. *the prerogative*, this word describes such powers as the sovereign can exercise without asking the sanction of Parliament.

l. 23. *sortable*, suitable.

l. 24. *estate*, condition. Bacon means to say that wealth was equally distributed.

l. 26. *moderation*, controlling, quieting.

l. 29. *of herself*, by herself, i.e. unmarried.

l. 36. *civil*, opposed to military. We still use the word 'civilian' of all who are not soldiers. *temperature*, cf. p. 20, l. 1.

Page 54, l. 2. *enablement*, qualifying men for.

l. 7. *note*, account. having been, because they have been.

l. 8. *affections towards*, their love of and zeal for learning.

l. 12. *attended with*, we should say 'by.' Callisthenes was a nephew of Aristotle. He is said to have composed an account of Alexander's exploits.

l. 17. Achilles, the hero of the *Iliad*, the poem in which Homer has described the Trojan war.

l. 19. *cabinet*, a box used for keeping jewels or other valuables in.

l. 23. *set forth*, published his treatise on physics. Cf. Alexander gained from Aristotle not only moral and political knowledge, but was also instructed in those more secret and profound branches of science, which they call *acroamatic* and *epoptic*, and which they did not communicate to every common scholar. For when Alexander was in Asia, and received information that Aristotle had published some books, in which those points were discussed, he wrote him a letter in behalf of philosophy, in which

he blamed the course he had taken. The following is a copy of it:

"Alexander to Aristotle, prosperity. You did wrong in publishing the acroasmatic parts of science. In what shall we differ from others, if the sublimer knowledge which we gained from you be made common to all the world? For my part, I had rather excel the bulk of mankind in the superior parts of learning than in the extent of power and dominion. Farewell." Plutarch, *Life of Alexander*, c. 7. Langhorne's Translation.

1. 27. what use he had of learning, to what extent he had profited by learning. The Latin translation has 'How well he had cultivated his mind by learning.'

1. 29. use of science, application of knowledge.

1. 31. scholastical, pedantic.

Page 55, l. 4. Diogenes, see on p. 24, l. 9. He is the type of those who despise fortune: and Alexander thought, that next to himself, Diogenes was the happiest man in the world. Seneca, on the other hand, thought that the lot of Diogenes was a happier one than that of Alexander. state, determination, solution. The question is whether it is better to be able to supply all our wants, or to have no wants.

1. 16. out of the depth, etc., the Latin translation adds, 'since deficiency and superfluity, which are expressed by weariness and intemperance, are, as it were, earnest of mortality.'

1. 17. liker, more likely.

1. 18. Democritus, p. 34, l. 3.

1. 19. of humanity, etc., showing a knowledge of human nature and of poetry.

1. 22. this is very blood, the liquid which ran in the veins of the gods was called *ichor*. Alexander said, "It is mere flattery to call me a god; I do not bleed *ichor*, when I am wounded."

1. 25. logic, i.e., subtlety in argument. In the Latin translation it is, 'skill in turning an objector's arguments against himself.'

1. 30. that was the matter, that is just what has encouraged them to come. They know that, so far away from home, there will be no one to contradict their assertions.

1. 36. to, we should say 'against.'

Page 56, l. 2. moved, proposed.

1. 5. purpose, plan. The word means literally 'something proposed': Lat. *propositum*.

1. 7. with so good manner as, in such a good manner that.

1. 10. turn your style, speak on the opposite side. The 'style' was the instrument with which the Romans wrote on wax. One

end of it was sharp; the other end, which was flat, was used for erasing what had been written. So 'to turn the style' meant in Latin 'to erase.'

l. 12. with that sting, with such bitterness.

l. 14. despite, spite. Alexander showed by this answer that he too could 'take a matter both ways.' He thought that Callisthenes could find nothing to say against the Macedonians: when he found that he could, he accounted for it by saying 'that spite gave him eloquence.'

l. 15. tropes, figures.

l. 16. translation, this word is the exact Latin equivalent of the Greek word 'metaphor.' Both words mean a 'transference.' A metaphor is 'a transference' of a word from its original to a figurative sense. 'A translation,' in the sense in which we ordinarily use the word, is 'a transference' of meaning from one language to another. taxed, censured. Cf. *untaxed*, p. 51, l. 29.

l. 19. that he did not, in not degenerating.

l. 22. is all purple within, is full of proud thoughts. Purple, in the East, was the colour of the Imperial robes. We still talk of a member of a Royal family as 'born in the purple.' Antipater was not praised for keeping to the Macedonian dress, but generally for the severity of his way of life. Bacon was probably misled by Erasmus, who took the story from Plutarch without understanding it. Alexander compared Antipater to a white-striped garment, which on the inside, the stripe being an external appendage, showed no trace of white, but was purple throughout. Erasmus confounded the name of the garment with the Greek word for *white*, and apparently supposed the remark to refer to Antipater's dress.—E.

l. 23. Arbela, a city near the Tigris, near which Alexander defeated the Persian King Darius, B.C. 330.

l. 26. as it had been, like. Owing to the number of camp-fires they appeared as it were a second starry firmament.

l. 30. embraced, assented to.

l. 34. their crown, i.e., their office. Some men love a king as a personal friend; others love the institution of monarchy, though they have no personal regard for the reigning king.

l. 36. taxation, censure. The point of Alexander's reply is, that conduct, which may be perfectly becoming in a subject, may be beneath the dignity of a king.

Page 57, l. 2. model, measure.

l. 9. hope, the story is told inaccurately. When Alexander was asked what he kept for himself, he replied not "*hope*," but "*what I hope for*," i.e., all the wealth which I expect to get by my conquests.—E.

l. 12. his estate, etc., he having spent all his own property in making presents to his soldiers.

l. 14. transported with, carried away by.

l. 16. he had turned all his estates into obligations, he had spent all his money in securing friends. '*Obligations*,' used in its literal sense of '*binding*' people to him by his liberality. He was a usurer, because he expected to get interest on his money, in the shape of services from those who had received it. Henry, Duke of Guise, was uncle to Mary Queen of Scots.

l. 21. the prints and footsteps, the signs.

l. 23. not as Alexander, etc., i.e., not as a powerful conqueror, but as a student.

l. 26. argued, inferred. company, companions. Cf. the common saying "A man is known by his friends."

l. 28. permanent, equivalent to 'extant.'

l. 33. real passages, vivid descriptions; by 'real' is meant 'true to the life.'

Page 58, l. 5. congruity of speech, fitness of speech; i.e., the use of words appropriate to describe the things intended. In the Latin translation the passage stands thus: 'Wherein he did labour to make conventional speech to become correct speech: he wished to substitute an appropriate and correct habit of speech for careless speech, and to make words, which are the images of things, suit the things themselves, instead of obeying simply the will of this multitude.'

Words are 'the pictures' of things, because they are the symbols by which we represent things. Cæsar employed such words as the exercise of his reason told him were true pictures of what he wished to express.

It appears, then, that the object of the book was to remove the errors of vulgar language, and to show that the language of a people may be specially adapted to a clear and appropriate expression of ideas. We cannot however speak with any certainty about the book. Bacon calls it here 'a philosophy of grammar'; elsewhere he speaks of it as a mere collection of precepts for speaking correctly.

l. 7. of his power, Cæsar completed the regulation of the calendar, and corrected the erroneous computation of time, agreeably to a plan which he had ingeniously contrived, and which proved of the greatest utility.... Yet this useful invention furnished matter of ridicule to the envious, and to those who could but ill brook his power. For Cicero (if I mistake not), when some one happened to say "*Lyra* will rise to-morrow," answered, "Undoubtedly, there is an edict for it": as if the calendar was forced upon them as well as other things. (Plutarch.)

l. 9. expressing, showing. Cæsar found that the old calendar had anticipated the true time by sixty-seven whole days.

l. 12. Cæsar's Anti-Cato was a reply to a panegyric which Cicero had written on Cato the chief of the republican party, and therefore an opponent of Cæsar. See p. 13, l. 32.

l. 18. to make himself but a pair of tables, to turn himself into a pair of tablets, i.e., to record. The tablets were the slips of wood covered with wax, on which the Romans wrote. They were folded, and the writing was preserved by the tablets having projecting rims.

l. 21. as princes pretend, which is the object of vain princes. For this use of *pretend*, cf. p. 33, l. 4.

l. 23. delectable, pleasing.

l. 30. it is reason he be thought, it is reasonable to consider him.

l. 36. cashiered, discharged. We apply the word now to an officer dismissed from the army with disgrace. not that they so meant, etc., i.e., not really wishing to be discharged, but hoping that, by demanding their discharge, they would induce Cæsar to come to terms. '*Expostulation*' is no longer used in the literal sense of '*demand*.'

Page 59, l. 7. made it their suit, requested.

l. 9. did extremely affect, was very desirous of obtaining.

l. 12. poor, uttered only by a few.

l. 20. of great allurements toward, well calculated to bring about.

l. 22. but for a name, the Latin translation adds—"for he had long been possessed of the power of a king." whereof mean families were vested, the name *King* was borne by people of obscure birth.

l. 26. after war declared, after he had declared war against Pompey and the Senatorial party. The issue of this war was that Cæsar obtained supreme power in Rome. The idiom is a Latin one.

l. 28. accumulate, see on p. 16, l. 15.

l. 29. whereto, to which: viz., the prohibition of Metellus.

l. 31. taking himself up, checking himself.

l. 34. terror, used of the fear inspired, and not, as usually, of the fear felt.

l. 36. conclude with him, finish my remarks about him.

Page 60, l. 1. took it upon him, assumed.

l. 3. spake, we should use *said*.

Lucius Sylla was elected perpetual dictator B.C. 82, but

resigned power B.C. 79. With this passage cf. the 15th Essay: "I have noted that some witty and sharp speeches, which have fallen from princes, have given fire to seditions. Caesar did himself infinite hurt in that speech: *Sylla knew nothing of letters, and therefore could not dictate*: for it did utterly cut off that hope, which men had entertained, that he would at one time or other give over his dictatorship." There is a play on the double meaning of *dictate*, which means both to read out and to wield the power of a dictator. The word *to skill* in the sense of *to understand* occurs also in the English Bible.

1. 11. particular, instance.

1. 12. as that which, in this respect that it, etc. It explains "rareness of circumstance."

1. 13. Xenophon, B.C. 401, the younger Cyrus raised an army, largely composed of Greeks, with a view of dethroning his brother Artaxerxes, king of Persia. Cyrus was defeated and killed at Cunaxa, near Babylon. The Greek generals were inveigled into a conference by Artaxerxes, and murdered: and Xenophon led the Greek army home. The remark which Bacon attributes below to Xenophon was not really made by him.

1. 17. seen the wars, had any experience of war. We still speak of "seeing service."

1. 18. a voluntary, a volunteer.

1. 19. conversation, society.

1. 20. in message, as the bearer of a message. *The great king*, this title was generally given to the king of Persia. The Greeks often called him simply "The king."

1. 21. after that, see on p. 10, l. 1, cf. p. 61, l. 35.

1. 24. The message imported, the purport of the message was.

1. 30. virtue, courage. The word properly signifies "manly worth."

1. 35. abused, deceived.

Page 61, l. 4. high countries, the inland districts—those far away from the sea.

1. 8. Jason of Phœæ had intended to invade Persia, but was assassinated before he had put his plan into execution, B.C. 370.

1. 9. Agesilaus, the Spartan, ravaged the western satrapies of Persia, B.C. 396, but, before he had accomplished much, was recalled home.

Alexander the Macedonian, Alexander the Great.

1. 10. upon the ground of, we should now say, "on the strength

of." The meaning is, that these three men were all incited by the example of Xenophon.

Pages 61 to end. Bacon now proceeds to demonstrate the good effects of knowledge upon the character of the individual. Learning refines and softens the character. It produces cautiousness in judgment. It removes the fear of death and poverty. It provides a remedy for all morbid states of mind. It incites men to continual self-improvement. Knowledge and goodness go together. Knowledge, too, is power; and it is power of the highest kind, for the dignity of power is proportioned to the dignity of that over which it is exercised, and the power which is given by knowledge is power over the minds of men. The possession of learning is a means of livelihood; and as for pleasure, intellectual pleasures are the highest of all pleasures, for they alone never pall. Lastly, all men are anxious to leave behind some memorials of themselves in the world; and what memorials are more lasting than books? Books, too, are the only memorials which are not barren. It is worthy of notice that even materialistic philosophers have allowed immortality to the mind. Bacon concludes by saying that he is fully conscious that his arguments will not suffice to give to learning the first place in the estimation of the vulgar: still, notwithstanding popular prejudices, he is certain that the possession of knowledge will always be its own justification.

1. 12. imperial and military virtue, proficiency in the arts of government and war.

1. 13. to moral, etc., to consider the influence of learning upon the character and conduct of individuals.

1. 24. acquainting, accustoming.

1. 25. the first offers, the ideas which first present themselves, conceits, ideas.

1. 26. nothing but examined, nothing but what has been examined. It is a Latin idiom. With this passage, cf. Pope's *Essay on Criticism*, v. 215.

"A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring.
There shallow draughts intoxicate the brain,
And drinking largely sobers us again."

1. 29. For, as regards.

1. 30. wadeth, "to wade" is properly to walk in water. "To wade thoroughly in learning" is "to study deeply."

1. 32. There is nothing, etc., "There is no new thing under the sun." *Ecc. i. 9*. Bacon quotes from memory. Neither can, etc.,

this is given as an illustration of the remark just made. The dandling of dolls is a type of the things which excite the wonder of the vulgar, but which appear simple enough to those who know the means by which they are effected.

1. 34. *adviseth*, informs himself about. The Latin translation explains the meaning: "No one will be much astonished at the play of puppets, who puts his head behind the curtain, and sees the contrivances and the threads by which the puppets are moved."

Page 62, l. 3. *services*, battles. We talk of a soldier "going on service," and "seeing service." for a passage, viz., over a river.

1. 5. *advertised*, informed.

1. 6. *went of*, told of. We still say—"So the story went" or "So the story ran."

1. 8. the divineness of souls except, the immortality of the soul can never be regarded as a trifling subject. *Except*, for *excepted*: the past participle.

1. 9. *whereas*, *where*. *As* and *that* were added probably to give a relative meaning to the originally interrogative adverb *where*. Abbott, *Sh. Gr.*, § 135.

1. 11. *to* and *fro*, used here as a preposition. It is generally used adverbially, signifying 'backwards and forwards.' '*Pro*' is the same as '*from*.'

1. 13. *impediments* of virtue, etc., because men do what is wrong or abstain from doing what is right for fear of suffering death or misfortune. *manners*, *character*.

1. 20. *Yesterday*, Epictetus means that the death of a man is as natural as the breaking of a clay vessel. In the 2nd Essay, Bacon says—"The fear of death, as a tribute due unto nature, is weak." Epictetus was a Stoic, born at Hierapolis in Phrygia about 50 A.D.

1. 21. *Virgil*, *Georg.* 2. 490. Virgil was perhaps thinking of Lucretius.

1. 32. the particular remedies, of *Essay* 1, "Nay there is no stond (hindrance) or impediment in the wit, but may be wrought out by fit studies, like as diseases of the body may have appropriate exercises ... every defect of the mind may have a special receipt." Observe that the diseases of the mind are expressed in terms which properly denote bodily diseases. Learning at one time removes morbid affections of the mind: sometimes remedies defects (see Bk. 2, p. 49): sometimes enables the mind to digest knowledge: sometimes makes it hungry for more knowledge: sometimes heals the soars that have been left by passion or sorrow.

Page 63, l. 4. thereof, i.e. in its own defects. Cf. p. 46, l. 4. still, always.

l. 6. to descend into himself, to examine himself.

l. 8. that most pleasant life, etc., Bacon gives the words as a quotation. Ellis points out that the idea is taken from Xenophon's *Memorabilia*, l. 6. Cf.—

“And as, by feeling greater delectation,
A man in doing good from day to day
Becomes aware his virtue is increasing,” etc.

Dante, *Par.* xviii. 58.

l. 9. the good parts he hath, any virtues that he possesses.

l. 12. to colour, to excuse, or give a specious appearance to. The word is frequently used in the general sense of ‘to make a thing appear what it is not.’

l. 13. that mows on still, who goes on mowing. For ‘still,’ cf. p. 36, l. 6.

l. 19. print, i.e. the impression made by the seal. Goodness is to knowledge, as an impression is to the seal: it is knowledge which makes men good.

they be, etc., the Latin translation has—“While, on the other hand, the storms of vice burst forth from the clouds of error.” Bacon means to say that, just as knowledge produces goodness, so error or ignorance produces vice. What Bacon says here is partly, though not altogether, true. In virtue there is both an intellectual and a moral element—the perception of what is right, and the will to do it. Men do sometimes deliberately what they know to be wrong: but vicious actions may, perhaps, more often be attributed either to ignorance of what is right, or to a want of self-control. Cf. *Essay* xxxviii.

l. 25. commandment, authority.

l. 27. herdmen, herdsmen.

l. 30. galley-slaves, ships called *galleyes* were manned with condemned criminals.

l. 32. generosity, the noble feelings. We use the word now in the special sense of ‘liberality.’ It means properly ‘noble birth,’ and so came to signify generally ‘nobility.’ In the Latin translation, it is ‘a servile people.’

l. 33. free monarchies, those in which the authority of the ruler is submitted to voluntarily.

Page 64, l. 1. putteth himself forth, strives his utmost.

l. 12. giveth law to the will itself, i.e. except when we are carried away by passion, our volitions are determined by our perceptions of what is reasonable. The only reason why we submit our judgment to others is that we believe them to be better informed than ourselves. If they really are so, then our

submission is wise, and is an honour to them. But it is a device of the Evil One to lead us into sin, to make us venerate impostors as if they were wise.

l. 10. have a superiority in the faith and conscience, control men's beliefs, and determines their ideas of right and wrong.

l. 20. great, qualifies 'pleasure,' in l. 17.

l. 23. revelation, the name of the last book of the Christian Scriptures.

l. 30. as, that. Learning is not so liberal to states, that it has nothing left for individuals.

Page 65, l. 1. descent, hereditary right. carried away, obtained. The traditional authority of the Brahman caste is a good illustration of Bacon's remark.

l. 6. so exceed ... as much as, i.e., exceed as much as. The superiority of a victory to a dinner is the measure of the superiority of the pleasures of the affections to those of sense.

l. 8. of consequence, consequently. The pleasures of the intellect are as far above those of the affections as the latter are above those of sense.

l. 10. By the affections are meant the emotions and desires distinct from the bodily appetites.

l. 11. after they be used, when we have experienced them for some time. verdure, freshness.

l. 12. deceits of pleasure, unreal pleasures.

l. 15. ambitious princes, etc., Alexander sighed for new worlds to conquer: and Charles V. resigned the crown of Spain to his son and retired into a monastery. Cf. *Essay* xix.: "We see also that kings that have been fortunate conquerors in their first years, it being not possible for them to go forward infinitely, but that they must have some check or arrest in their fortunes, turn in their latter years to be superstitious and melancholy, as did Alexander the Great, Dioclesian, and, in our memory, Charles the Fifth: and others. For he that is used to go forward, and findeth a stop, falleth out of his own favour, and is not the thing he was."

l. 16. satisfaction, full enjoyment. They never pall: however much we have of knowledge, we still wish for more.

l. 21. Lucretius, a Roman poet, born about B.C. 95. He wrote a poem 'On the Nature of Things,' expounding and defending the atomistic philosophy. Cf. *Essay* i. The same idea is expressed in the *Mahabharata*:—

"As men who climb a hill behold
The plain beneath them all unrolled,
And thence with searching eye survey

The crowds that pass along the way,
 So those on wisdom's mount who stand
 A lofty vantage ground command.
 They thence can scan the world below
 Immersed in error, sin, and woe:
 Can mark how mortals vainly grieve,
 The true reject, the false receive,
 The good foreake, the bad embrace,
 The substance flee, the shadows chase.
 But none who have not gained that height
 Can good and ill discern aright."

Page 66, l. 1. to this tendeth, this is the object of.

l. 2. generation, the begetting of children.

l. 4. celebration, we should now say *celebrity*.

l. 6. the monuments of wit, etc., cf. the boast of the Latin poet Horace—"I have raised a monument more lasting than brass, and loftier than the kingly structure of the pyramids—one which neither piercing rain, nor raging wind, nor lapse of time can destroy."

l. 9. without the loss, Bacon wrote before the days of Homeric criticism.

l. 10. have been decayed, we should now say *have decayed*.

l. 16. the wrong, the injury.

l. 18. still, p. 36. l. 6. With this passage cf. Milton's *Areopagitica*, pp. 5-6 (Ed. Clarendon Press), "Books are not absolutely dead things, but do contain a potencie of life in them to be as active as that soule was whose progeny they are: nay, they do preserve as in a violl the purest efficacie and extraction of that living intellect that bred them."

l. 22. consociateth, joins.

l. 28. most immersed in the senses, i.e., materialistic: explaining the functions of the mind by the activity of the senses, and denying the existence of any divine or immortal part in man.

l. 30. came to this point that, confessed so much that. The Latin translation has—"were compelled by force of truth to allow that." Bacon is referring here to the doctrine of Aristotle and his followers. Plato had taught the immortality of the individual soul. This Aristotle denied. All the lower functions of the soul, he said, are destroyed by death; but the highest function of the soul, viz., the creative intellect, is indestructible. Therefore though after death the individual ceases to exist, yet the creative intellect is not destroyed, but is resumed into the universal mind.

l. 33. affections, see on p. 65; l. 10.

Page 67, l. 2. do disclaim in, do renounce. These imperfect suggestions of Aristotle, says Bacon, are nothing to the Christian, for he knows that after death body as well as soul shall be purified, and enjoy immortality: still I have mentioned them, because they are a human testimony to the dignity of knowledge.

l. 4. probation, proof. We use the word now in the sense of 'trial.'

l. 10. *Æsop's* cook, see *Phaedrus*, iii. 12. Bacon alludes to the fable again in *Essay* xiii.

l. 13. judged for plenty, decided in favour of plenty. Midas was a king of Phrygia, and it is said that, as a punishment for the judgment referred to in the text, Apollo turned his ears into those of an ass.

Paris, Juno the Goddess of Power, Minerva the Goddess of Wisdom, and Venus the Goddess of Love and Beauty, all claimed the golden apple inscribed '*for the fairest*,' which Discord threw into heaven. Paris, a Trojan shepherd, was made umpire, and gave the prize to Venus. See Tennyson's *Æneid*.

l. 14. Agrippina, mother of the Emperor. Many years before Agrippina had anticipated this end for herself, and had spurned the thought. For when she consulted the astrologers about Nero, they replied that he would be Emperor and kill his mother. "Let him kill her," she said, "provided he is Emperor," Tacitus, *Annals* xiv. 9. To please his mistress, the Emperor Nero caused his mother Agrippina to be murdered in the year 59 A.D.

l. 17. Ulysses, the most crafty Greek who joined the expedition against Troy, in the course of his wanderings fell into the hands of the enchantress Calypso, who promised him immortality, if he would stay with her. He preferred to return to his wife Penelope.

l. 24. Wisdom is justified, etc., i.e., that nothing is better than wisdom is shown by the superiority of those who possess wisdom. This is one of the sayings of Jesus—*Matthew* xi. 19.

SOME PARALLELS.

Page 6, l. 32. St. Augustine, *City of God*, Bk. viii. ch. 20: The original of this name (demons), if we look into divinity, appears somewhat worth observation, for they were called in Greek, *δαίμονες*, for their knowledge. Now the Apostle, speaking in the Holy Spirit, says: 'Knowledge puffs up, but charity edifies': that is, knowledge is then good when it links with charity: otherwise it puffs up, that is, fills one with vainglory. So then: in the devils is this knowledge without charity, and thence they are puffed so big and so proud, that the religious honours which they well know to be God's due they have ever arrogated to themselves.—*Healey's translation.*

Page 18, l. 10. Of all our political men he is the only one who seems to me to begin in the right way, with the cultivation of virtue in youth; like a good husbandman, he makes the young shoot his first care, and clears away us who are the destroyers of them. That is the first step; he will afterwards attend to the elder branches; and if he goes on as he has begun, he will be a very great public benefactor.—*Plato, Euthyphro.*

Page 20, l. 21. "Nam vi quidem regere patriam aut parentes, quamquam et possis, et delicta corrigas, tamen importunum est." (*It is an unnatural thing in any circumstances to govern one's country or one's parents by force.*)—*Sallust, Jug. ch. 3. Cf. Cicero, Epp. Fam. 1. 9.*

Page 34, l. 34. They interpret much in the same manner: so that in that it is counted so horrid a thing to say that Saturn devoured his sons: they have expounded it thus, that length of time, signified by Saturn's name, consumes all things it produces.—*St. Aug. City of God*, Bk. vi. ch. 8.

Page 45, l. 11. He (Jesus) chose Him disciples and named the Apostles: poor, ignoble, unlearned men, that what great work soever was done, He might be seen to do it in them.—*St. Aug. xiv. 38.*

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